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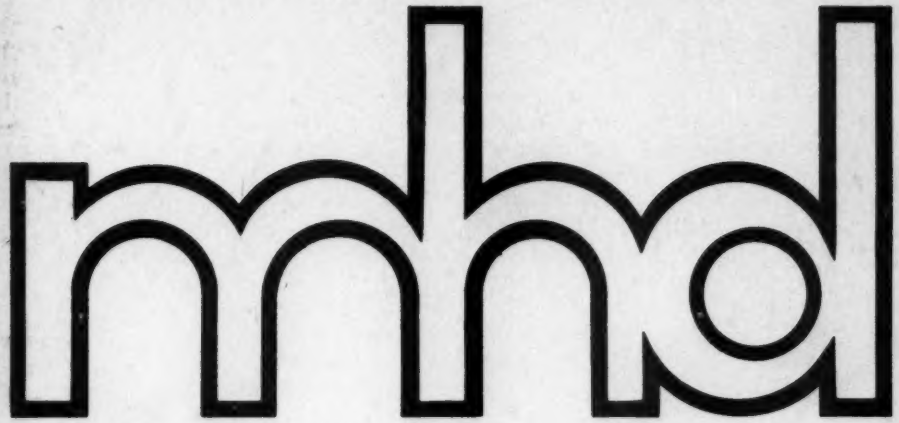

1 Other Perspectives on Mental Health

2 An Integrated Theory of Disease: Ladino-Mestizo Views of Disease in the Chiapas Highlands
by Horacio Fabrega, Jr. and Peter K. Manning

9 Indigenous Barriers to Communication
by Masao Kunihiro

15 Concepts of Length and Distance in a Study of Zulu Youths
by H. W. Page

18 Psychopathologic Study of Obsessive-Compulsive Neurosis in Taiwan
by Wen-Shing Tseng

23 Heroic Ethnocentrism: The Idea of Universality in Literature
by Charles R. Larson

28 A School for Medicine Men
by Robert L. Bergman

33 Witchcraft Practices and Psychocultural Therapy with Urban U. S. Families
by Madeleine Leininger

41 The Religious Functions of Psychiatry
by Scott H. Nelson and E. Fuller Torrey

45 Symptom Intensity and Life Events
by Eberhard H. Uhlenhuth and Eugene S. Paykel

47 On the Possibilities of Self-Control in Man and Animals
by David Premack and Brian Anglin

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Other Perspectives on Mental Health

It is evident that cutural differences in language, custom, and human values are deeply embedded in . . . mechanisms of central control of perceptions and judgments. We all wear idiosyncratic physiological lenses that are invisible to us, and become available for detection only when we trade observations with others whose lenses, invisible to them, differ from our own.

Until now, science has had only two explanations for discordant testimony between persons witnessing the same event: One or both of the parties is lying or one or both of the parties is psychologically incapable of maintaining correspondence between their perceptions and their testimony. The black robes of law, the green table of diplomacy, and the bloody fields of battle are populated by individuals who believe the opposition party is either lying or psychologically unfit. A third possibility brought to light by recent research is that the same event may have been experienced as entirely different events. In reality, insofar as these processes are at work, we experience different worlds.

Differences in perceptual processing are most striking where the gulf of differences in past experiences is greatest. Cross-cultural communications are more subtly difficult than we have hitherto supposed. It is easy to see that individuals similarly reared may take uniform exception to the testimony of any groups differently reared. Each group will reinforce its own idiosyncratic perceptions and judgments.

—from a presentation by Robert B. Livingston, M.D. at the Conference on the Twenty-Fifth Anniversary of the National Mental Health Act

In our society, *mental health*, as a term and as a concept, has its underpinnings in traditional Western ideas of pursuing and applying knowledge—only one viewpoint for considering the study of man. But, increasingly, groups within our own country find that modern notions of science, of illness, and of treatment are inadequate or inappropriate for some situations. Modern scientists and practitioners also show growing respect for and are learning from groups in American society who have not assimiliated modern science into their everyday approach to problems. And in order even to approach an understanding of scientific endeavor, of illness states, or of diagnosis and treatment procedures in cultures that are non-Western or that rely little on modern technology, we are forced to reshape our framework for conceptualizing man and his relationship to nature or to the supernatural. To do so enriches our own experience—not just for the sake of gleaning erudite bits of knowledge or even for the sake of communicating with other peoples—but because practices grounded in philosophical notions different from those of our own often raise legitimate questions about our practices and illustrate gaps in our theories.

In this issue of the *Digest* we feature several condensations of articles that show how nontraditional views of science or of everyday life shape concepts of *mental health, mental illness, symptoms, diagnosis,* and *treatment.* Under these conditions the concepts have dimensions that are sometimes quite different from the concepts as we typically use them.

An Integrated Theory of Disease: Ladino-Mestizo Views of Disease in the Chiapas Highlands

Horacio Fabrega, Jr. and Peter K. Manning

Among Spanish-speaking peoples of the highland region of the State of Chiapas in southeastern Mexico, the term "disease" includes happenings and processes that observers would view both as sociopsychological and as bodily. A nondualistic and integrated theory of disease obtains in this region, a theory which includes references to emotions, interpersonal relations, naturalistic processes, and bodily changes. The theory contrasts sharply with that associated with the modern system of medical care and is the basis of difficulty for persons who seek medical relief in the clinics of the city.

Psychosomatic medicine—Theoretical developments associated with psychosomatic approaches to disease are typical products of Western biomedicine, and scientific attention to mentalistic aspects of biological functioning came relatively late in the history of biology and medicine. One can trace the unfolding of this attention aimed at linking mind and body functioning in early psychoanalytic writings.

A society's theory of disease, however, is not only an explanation of how a person (e.g., body, mind, behavior, etc.) is changed during illness; a theory of disease also provides the outline of what members of a culture accept as real. Theories of disease, then, not only explain but also structure the expectations and behaviors of persons during illness, thereby directly affecting the nature of the experiences and manifestations of disease. Potentially enriching insights about the nature of disease and human functioning may be anticipated when problems associated with crises, stress, and disordered bodily functioning are probed through non-Western approaches to illness and disease.

Cross-cultural medical studies—In epidemiological studies the investigator begins his study with a fixed preconception of the disease or diseases he intends to uncover in the field (i.e., a case of disease D_1 is realized when indicators I_L-I_Q are found). He is not likely to look for, notice, or record the way in which persons experience and orient to the complex changes and processes that are associated with disease. Even in the work of epidemiologists who are sensitive to the pernicious effects of a closed-system approach, there is manifested little concern for carefully searching for unique correlates of a disease process. The result is that fixed categories vis-a-vis disease are perpetuated, and the way the persons of the group experience, explain, and orient to the disease process is left out of focus. It is in the domain of bodily sensations, emotions, and cognitions that the student of disease is likely to find material to enrich the field of psychosomatic medicine. For it is here that the investigator is likely to learn about the reciprocal influences that sociocultural factors have on bodily happenings.

Anthropologists who examine medical problems have been content to examine medical issues at the sociocultural level. Illnesses have been described mainly in terms of their meanings in the culture and in terms of the organized reactions that they occasion in the group. Rarely have investigators probed the actual contents of the behaviors and symptoms that indicate socially and psychologi-

cally that an individual is ill. The bodily correlates of "disease"—the physiological symptoms and the way in which these are experienced and evolve through time—have not been described. At most, social, cultural, and psychological categories merely elaborate upon that which is biologically "given." Physicians and biologists conversant with the literature of psychosomatic medicine anticipate that the effect of culture on human disease is more pervasive insofar as the relation between psychological factors and biological happenings is direct and continuous.

Research Setting and Methods

The research was conducted in and around San Cristobal de las Casas, a city of some 33,000 people in the highlands of Chiapas in southeastern Mexico. The city is the commercial, social, and religious center for a hinterland which contains about 175,000 Indians of Mayan descent. Within this geographic setting there are three principal ethnic groups: *ladinos,* who are said to be of direct Spanish descent; *mestizos,* or people of mixed Indian and Spanish descent; and the numerically dominant but socially subordinate group, the heterogeneous *indigena.* The characteristics that distinguish the groups are not exclusively genetic or biological, but are rather social and cultural (wealth, power, education, style of dress, etc.).

Data were gathered by systematic elicitation from informants. Procedures were directed toward discovering questions which constrain informant responses to a limited set. Questions which are adequate in this sense are termed frames, and the regularly associated answers are called responses. The frame and responses constitute a unit in the description. The initial goal is to search for the specific and relevant frames in the domain of illness. These frames are used in the subsequent elicitation process when choices, contrasts, and cognitive boundaries are sought.

The construction of a description composed of eliciting frames and responses is a step toward the production of an ethnography in which significant categories and relations are derived from intracultural analysis rather than from externally imposed rubrics. The task becomes the discovery of knowledge that is not one's own, but which people of the culture under study use to identify, evaluate, and act upon in circumstances in which they find themselves. A description which accurately displays the "knowledge" of these informants should allow the anticipation (if not prediction) of events and behavior in circumstances specific to the culture under study in ways that match the expectations of the informants. Appropriateness or inappropriateness of anticipations based on the description is the means of actually testing the description.

In the following research, lay individuals of the regions as well as sick persons, physicians, and folk practitioners were interviewed regarding experiences with medical problems. Persons of both ladino and mestizo background served as subjects. In interviews a representative of a family unit was asked if a member had experienced an illness episode in the previous 2 weeks. If an episode had been experienced, the respondent was further asked what symptoms were associated with this self-defined problem, what interruptions took place in specified role spheres, and what actions were taken for resolution of the problem. In this research, then, the culturally based rules are inferred from the behavioral consequences associated

with known linguistic pairings: symptoms, folk terms, and behaviors.

Ladino and Mestizo Medicine

Underlying factors in the etiology of illness—According to ladinos, an outbreak of illness constitutes evidence that a person's strength, termed by them *consistencia,* has been overrun or depleted. This term refers to conjoined aspects of a person. It includes his inherited constitution, status of his parents during conception and pregnancy, and features of body and mind, including the person's *caracter,* a mentalistic entity, roughly personality. Together with one's intelligence, education, and previous experiences, personality is believed to enable a person to plan and deal effectively with life demands. A person with a strong *consistencia* is one who does not allow himself to become *sugestionado.* Here, ladinos refer to the ability to withstand suggestions from others as well as preoccupations and worries, which are seen as potentially harmful to both mind and body.

Centrality of emotions and interpersonal relations—In the causation of illness and disease, ladinos ascribe principal importance to the emotions. Emotions can actually be ranked as to their pathogenicity, and it is possible to associate causally illness types with each of the various emotions. In the list of emotions that are pathogenic, pleasantness or unpleasantness are not critical factors, but their amount and persistence in the individual across time appear to be critical. Emotions and feelings are viewed as inevitable, but when present they should be discharged (in action, talk, or thought) or neutralized (as with alcohol) so that the body at no one time or during any one interval carries an excessive load. Arguments, separations, coveting, love triangles, intensely satisfying exchanges, etc., all have medical relevance because they give rise to excessive feeling. The personality types or *caracteres* assume relevance here since they reflect an individual's habitual mode of conducting and responding to interpersonal situations.

In the ladino theory of disease, then, one finds a concept of "person" which refers to a psychological, social, and physical being; all of these related aspects of being are seen as connected and affected in important ways by the emotions. This "self" also has bodily attributes. Diseases and emotions are believed to have specific loci in the organs of the body which are consequently altered and damaged causing the signs and symptoms of disease. Body and mind, then, are conjoined, the core essence of a person, responding to and regulating his various activities.

We may illustrate the relations between these notions by examining outbreaks of illness. The *consistencia* of the person and his personality determine vulnerability. A critical factor is the influence of interpersonal situations. A frightening, embarrassing, or shameful incident, for example, is a common cause of illness among women, but rarely affects men who are judged as more resistant along these emotional axes. Arguments and altercations, excitements, and intensely satisfying or happy situations can produce illness rapidly, and although these can be lethal they often are short-lasting episodes. Sadness and envy, on the other hand, produce illness gradually and insidiously; the components or manifestations of the illness are general, diffuse, and less dramatic but longer lasting and less easily removed. The type of illness and its gravity are a function of the constitution and character of the person and the evolving interpersonal

situation. Cleverness and intelligence modify the severity and duration of emotional states insofar as they enable one to discharge the emotion in a reasonably productive or adaptive way.

Illness conditions can affect groups that are exposed to or participants of interpersonal situations that are inciting; thus the illness may be described as "contagious." Likewise, it follows that friends and relatives are important in the genesis and development of illness, for they, by intensifying or modifying the reactions of others, are believed to affect the level of emotion and hence its virulence and pathogenicity. Communities or periods of time characterized by social unrest are especially deleterious. By contributing to low morale, unhappiness, and worry they can render the person vulnerable to frequent and/or more serious illness.

Beliefs and attitudes toward the body—Ladino views on illness and disease must be seen as extensions of their beliefs and attitudes about their bodies, which are viewed as complex, delicate, and sacred. Mystery also attaches to the body, for with the body one is said to be able to apprehend the pain of a loved one, his physical constraints, his disease. What we may view as sensitivity, empathy, or simply suggestibility, the ladino views as the body's way of apprehending and communicating changes in the physical states of others. The fact that sadness, happiness, and other emotions can replace the pain of a disease or the awareness of sensations associated with physiological processes (e.g., weakness, hunger) ladinos take as proof of the continuity or unity of body and mind, for the body's physically compromised state is believed to be actually altered by these experiences. The body can dominate the self in other ways. Attractive and strong bodies are sources of pride and admiration, whereas heavy, unkempt ones bring shame and discredit. To the ladino, there is a particular individuality and uniqueness in others which involves their bodily constitution. Social exchanges between close persons are thus also occasions for inquiries about the conditions of one's bodies and health in general. The centrality, sacredness, and respect for the body is manifested individually and socially.

An illustration of the influences that are associated with bodily constitution and state is afforded by the condition of pregnancy. Pregnant women are afforded a number of social and psychological entitlements and prerogatives, and family members modify their expectation of and demeanor toward women in this condition. Pregnant women are also the locus of unusual powers. They are able to effectuate medical cures denied nonpregnant women. However, women who are pregnant are also dangerous sources of illness. Insofar as women naturally acquire this strength or power during the pregnancy, they are not held responsible for its untoward effects on others.

The experience of pain—The unity between mind and body, feeling and biological state, and the linkage of these with social processes can be illustrated in the way ladinos speak about and describe pain. One does not obtain descriptions of pain experiences as a mentalistic entity separate from the locus, extensions, and presumed source of the pain. Physical and social metaphors abound in attempts to elaborate about the pain associated with conditions focused in discrete anatomical parts. Pain, as a distinct sensation or feeling, is not given independent status. What exist, instead, are pains of X, Y, Z, etc., where these are diseases, emotions, anatomical entities, or

even situations. What we as physicians think and inquire about as pain, ladinos conceptualize, talk about, and experience as complex wholes, i.e., as chains of behavior, or situations, or as critical episodes. Thus, description of the pain of X will likely include an emotional and/or interpersonally inciting cause; the mechanism and components of the processes that result; a description of the characteristics of the pain viewed as a bodily, psychic, and social entity; the duration of these; and the various ways of controlling and bringing the pain episode to a close.

Additional factors—Illness is judged by the ladino to also result from naturalistic factors: Excessive heat, cold drafts, improper food, prolonged fastings, excess activity, and inadequate rest and exercise may all be invoked as factors in explaining the occurrence of illness. The ladino theory of disease accommodates most of the usual causes of disease that are expounded in the competing modern system. However, careful interviewing discloses that emotional-interpersonal issues underlie these factors and are considered basic.

Acts of malevolence attributed to witches are frequently said to be the sources of illness. Sources of alleged witchcraft are fellow ladinos and especially the *indigena*. Meaningless or otherwise unexplainable outbreaks of serious disease eventually are attributed to their "senseless" actions.

The mechanism of disease—The linkages between the various classes of factors that underlie and affect health are mediated by the person's blood and by his nervous energy. Emotional excitements, physical essences reflecting the state and strength of the body, and deleterious exogenous influences that affect health all directly affect the blood and in fact are judged as part of the blood. Native practitioners, consequently, by pulsing the sick person, learn from the blood the nature of the disease and its cause.

An Integrated Theory of Disease

The ladino theory of disease can be labeled "integrated" because a number of alternative domains frequently viewed by others as separate and nonoverlapping are treated by them as conjoined and continuous. Among these domains we may include mind vs. body, social vs. psychological, and genetic vs. environmental. Just as these domains overlap and fuse, so also do the naturalistic and supernaturalistic; physical factors as well as spiritistic or diabolical influences are given importance in disease causation.

The causes of psychotic disturbances are not judged as different from those of other types of illness. Although ladinos may view the psychotically disturbed person as altered and changed during the time that he is ill (and this would include organismic changes), no stigma attaches to the person following recovery. Behavioral alterations that an outside observer may describe as psychiatric—depressive or paranoid reactions, antisocial outbursts, character disorders, etc.—are frequently also judged by ladinos as indications of illness, though the nature of this illness is not differentiated in any special way. Illnesses of this type may even be called excessive envy or greed or sadness, with the situational and interpersonal roots included as indications of the illness state. Importantly, however, discussions with ladinos disclose that they consider the afflicted person or persons as also physically changed and ill—i.e., specific organs as well as the blood is described as altered and diseased.

Disease, Mind-Body Conceptions, Medical Care, and Social Change

The fact that illness is seen as hav-

ing many diverse but interconnected facets has logical implications for the treatment of illness. For one thing, requesting treatment from a practitioner is the occasion for the sharing of a host of personal concerns which are viewed as components of the illness. Data about how the body is functioning is simply one type of information that is exchanged, and special technical competence is but one of many attributes that a practitioner must possess. Ladinos believe that one who knows about the mysteries of the body must know about the mysteries of the soul, of the spirits, of the proper forms of conducting social relations, and of the future itself. Thus, the transaction between the practitioner and his patient is the focus of social, psychological, and moral as well as bodily matters. During medical treatment practitioner and patient both become parties to a crucial situation that has roots in and effects on highly private and socially meaningful issues. The transaction, thus, must establish consensus vis-a-vis blame, shame, malevolence, and propriety. Trust and distrust become critical because a medical evaluation entails the examination of motives, the evaluation of character, and the opportunity to judge the espousal of norms; diagnosis is in part equivalent to socially and morally typing another; and treatment brings the opportunity to share in and help resolve another's crisis of living by modifying his conduct.

When a ladino visits a physician he encounters a "modern" view that fractionates his native holistic and integrated view of disease. He is probed precisely and intensively about his body, but not about his feelings, moods, dispositions, and social relations. Little confidence and trust can be placed in procedures coordinated by an impersonal individual who appears uninterested in the varied personal and social goings-on which are believed to cause alterations in bodily states and in fact give these their significance. For the ladino patient, one result of having his medical problems handled in this fashion is skepticism, alienation, and a lack of compliance with medical regimens. A search for a more "understanding" practitioner follows, and countless instances can be recorded of persons who have withdrawn from "modern" treatment when no immediate cure was forthcoming, with consequent deterioration in health status.

Many factors can be invoked as reasons why folk systems of medical care are supplanted by Western biomedical conceptions and practices. We can classify these roughly into two types: patent limitations of the folk system (objectified as high infant mortalities, high disease prevalence, etc.) and evidence that Western "modern science" can profoundly change, alter, and control nature. However, the spread of modern medicine not only takes the place of native views and practices, but also undermines established modes of thinking, feeling, and behaving. In the highlands, conceptions about and experiences with disease, are isomorphic with those that articulate one's personal identity and also give meaning to social relations. It is not surprising, then, that the intrusion of Western medicine to such a setting brings with it the destruction of the unity that is seen in social relations, body, and self. Insofar as it operates through specialized occupational and suboccupational groups (nurses, internists, psychiatrists, surgeons, etc.), medicine tends to segmentalize the person in various ways. What to ladinos is a single crisis having broad ramifications is in this new system a heterogeneous collection of "problems" each of which has a sepa-

rate cause and locus. In this process of differentiation and specialization, Western medicine not only fragments and undermines the native cultural system thereby creating conflict, but it brings with it the rigid dualistic notions that many physicians see as being central to the disaffections patients often feel with medical care in urbanized societies.

Modern psychosomatic medicine and the unified view of disease, seen in the light of historic and logical considerations, may represent an attempt to reconstruct in a highly refined manner a view of illness that was previously dominant at a particular point in time in selected cultures (principally "Latin," "Mediterranean," or "expressive"), and is presently held in variable degrees by subcultural groups, e.g., Italian-Americans, Mexican-Americans, Puerto Ricans, etc. Furthermore, this modern view of disease must be seen as a response to the earlier dualistic one which itself was a product of historical circumstances. Taken together, the dualistic and integrated views of disease dramatize the point that facts taken logically as evidence of disease in one framework are nondisease or epistemologically nonexistent in the other. Theories about or views of disease, then, contribute to the very essence of illness states. One is thus drawn to the position that the "natural history of disease" is not invariant and fixed but rather a consequence of changes in the functioning of connected systems, each of which is affected by symbolizations about the meaning of and bases for these changes.

Currently there is much confusion and ambiguity in contemporary American society about where medical matters begin and end, and also about the nature of the boundary between the medical and the social. No clear solutions to these dilemmas are forthcoming, though factors underlying the dilemmas may perhaps be better understood in the light of the material reviewed. In many ways, features of the contemporary problems of health and illness, of deviance and of welfare, of social control and crime, may be seen as residues of the fractionization of the more holistic and integrated system associated with the simple folk societies such as those of the Chiapas highlands. In these settings, such behaviors are not isolated and viewed as unwilled and determined in some impersonal way nor are they problematic and a source of ambiguity and confusion to the individual or to the social system. Instead the behaviors are interpreted and given significance within the integrated and comprehensive view of self-body and social relations that prevails. It may be then that contemporary dilemmas about medicine and society, and ambiguities about ways of dealing with them, result in part from the fractionization that is a feature of the modern view, a fractionization that is associated with the creation of separate domains each of which has causes that are somehow beyond the individual's locus of control.

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Indigenous Barriers to Communication

Masao Kunihiro

Why, in spite of many exchanges, has there been so much "discommunication" between Japan and America? This question should be approached not simply as an issue in bilateral relations but as a problem on the higher level of intercultural or cross-cultural communication between heterogeneous cultures. In this world of annihilated distance, the United States and Japan must build increasingly closer relations with different cultures. Thus, to examine the points of friction between the United States and Japan is relevant to the relations of both nations with other countries and cultures, as well as with each other.

An initial step in trying to put substance into our contacts is for Americans to understand Japan's unique internal patterns of communication. These patterns have been conditioned by a long history of racial, ethnic, and linguistic homogeneity, and despite their unique provenance, they are often applied directly in external communication. This is particularly true in exchanges with the United States, since that country is considered an ally. In the foreseeable future, moreover, Japan is not likely to change either this attitude or the manner in which it communicates with the United States. Patterns of communication have great durability. Understanding Japanese patterns of communication can provide an index for learning about the nonverbal assumptions behind verbal communication. In fact, one reason for "discommunication" between Japan and the United States lies in the great dissimilarity between the two countries in importance and use of nonverbal communication and unarticulated attitudes.

In Japan, language, or communication through language, has not received the same emphasis as in the West. Rather than an expression of one's own will or thoughts, language has been a way of casually throwing the other guy a ball in order to get a reaction from him on which to base one's next action. It has been considered poor policy to use words as a tool to express one's views, to persuade the other fellow, or to establish any depth of understanding. Language as an instrument of debate is considered even more disagreeable and is accordingly avoided. Thus, in Japanese society, use of words becomes a sort of ritual, not often to be taken at face value. It is only one possible means of communication, not *the* means of communication as is often the case among English speakers. This is illustrated by comparing Japanese and Western drama. Generally speaking, it is impossible to comprehend Western plays without understanding the dialogue. In contrast, even in the highly stylized theatrical art forms of Japan, it is possible to follow the plot without the words.

Contempt for language can also be seen in the attitude of even the most progressive Japanese companies toward contracts. It is quite common to have unwritten contracts between manufacturers and trading firms; often contracts seem to exist only for the purpose of specifying stipulations that are an exception to the rule.

What are the reasons behind such distrust of language? Also, what goes into this Japanese "community of emotion" in which words are so sparingly used? Part of the explanation is the unparalleled homogeneity of this island country. There have been few, if any,

nations in the world where a single ethnic group has lived for such a long time using the same language throughout its history. Furthermore, Japanese unity is a product of its geographical and historical conditions; its independence as an ethnic entity or state has been maintained by natural rather than political forces. With such a degree of unity, understanding among the members of the society, too, is highly sensitive. They share common life styles, attitudes, superstructure, and substructure. These conditions make it possible for the same kind of communication that exists within a family to prevail throughout society. The familial structure of society is a result *and* a manifestation of Japan's natural historical unity. The danger must be recognized, however, that even this natural unity might disintegrate upon contact with entirely different cultures and peoples in the international area if there is not a serious, conscious effort to adapt. Both individually and in groups Japanese are adept at proximate communication, but they are handicapped when it comes to distal communication. For instance, two strangers sitting next to one another in a train (even if they are both Japanese) will exchange hardly any conversation and the atmosphere between them is cold and strained. When communication is with different racial and ethnic groups, with which there is no feeling of familiarity whatsoever, the unpleasantness is doubled.

A second reason for the Japanese contempt for language is the hierarchic structure of Japanese society. In this hierarchy the will of those further up the ladder is conveyed downward; it is unpardonable for someone on a lower rung to give free and uninhibited expression to his opinions. In Japan the family-based principle of "vertical society" creates the bond in human relations, exerting a frightful degree of compulsion on the individual.

It seems incongruous that in modern Japan, the most highly industrialized society in Asia, the social fabric is held together by this family principle with an almost unbreakable tenacity. This social norm has encouraged the development of techniques of "reading the minds of one's superiors from their facial expressions" and "guessing what they are thinking." At the same time, a sense of hierarchy at home and the patterns of communication that go along with it have had a strong imprint on Japan's international dealings and on its view of foreign countries. Thus, Japanese understand international relations in terms of the same superior-subordinate relations, the same vertical relationships, and base their actions on this understanding.

Another explanation for the relatively low esteem placed on articulation of thoughts is related to child-raising methods. The American mother talks to her newborn child much more frequently and for longer periods. The Japanese mother has much more physical contact with her child—holding him on her back, and the like. There is a marked difference in reactions to the child's efforts at vocalization. When the child cries, the American mother tries to discover the reason and to remove the problem, whereas the Japanese mother's reaction is slower and less often satisfactory to the child. In some aspects American childraising is more conducive to the establishment of person-to-person relationships; in Japan there is a tendency to view the child as a mere appendage of his mother.

A kind of reticence is apparent in the art forms of Japan. Japanese painting often consists of only a few dots on the canvas, leaving the rest to the imagination of the viewer. Haiku is a

poetic genre consisting of only 17 syllables. This form is symbolic of the premium placed on taciturnity in all forms of communication. Figuratively speaking, the speaker or the haiku poet has only to provide a few dots; filling in between them is not the responsibility of the speaker but rather a task left to the listener.

Our language fosters the same kind of esthetic vagueness that springs from sparing use of the medium. It is often difficult to ascertain what noun a particular adjective is supposed to modify. There is no distinction between singular and plural for nouns, the comparative degree is seldom used, and the number of relative expressions is very small. In traditional Japanese a single word—*kimo* [liver] or *harawata* [entrails]—stood for all of the human internal organs, and the word *kokoro* [heart] represented not only *chi* [wisdom], *jō* [emotion], and *i* [will], but also concepts which are today differentiated through the use of terms coined for translation purposes such as *risei* [reason], *gosei* [wisdom, reason], and *seishin* [spirit]. Even highly educated Japanese use the traditional terms in daily life instead of their more specific counterparts. Such words would probably not serve to explain the theory of relativity or the principles of quantum mechanics or to discuss European logic. I should like to suggest, however, that the first step in improving United States-Japanese communication should be for Americans to discard the idea that this Western logic is *the* universal thought structure for all the 3.6 billion inhabitants of this globe.

The Japanese statement typically falls into either one of the following types. The first type is a presentation of one item after the other in a highly anecdotal or episodic vein; conclusions are seldom articulated, or are left unsaid. This is a "dot-type" presentation. The second type is observed largely in statements made by people who may have been influenced by continental philosophers. These people tend to think deductively, presenting maxims and axioms as they are, often unaccompanied by data. Both these ways of presentation irritate non-Japanese. To the first format, the typical reaction is "So what?" and the typical reaction to the second is "How, in concrete terms?"

The American presentation typically begins with a series of concrete facts and data, and then the speaker tries to involve the audience in his search for principles or laws that may lie beneath as a means of drawing conclusions. This is a two-way kind of communication in which the audience is involved, and, I presume, it is what is called in English a process of abstraction. On the other hand, Japanese interpret the term "abstraction" to mean presenting the results of the process of abstraction in an a priori manner. It is not surprising therefore that non-Japanese are often irritated or discouraged at such a marked departure from what they regard as a logical presentation. If Japanese statements are considered shallow, without substance, or are misconstrued as a conscious evasion of the issue, it is because the logic is so different.

There is also a vast dissimilarity between what are supposedly lexicographical equivalents. Take the English word "fair." There is no Japanese word which is equivalent both in denotation and connotation. An example of another problem—"Japanized" English words—may be found in President Nixon's statement made during his trip to China. He said: "China and the United States share many parallel interests and can do much together to enrich the lives of our peoples." In this case we understand from the context

that "parallel" means "with like direction or tendency" or "tending to the same result." However, the word "parallel," which now is part of the Japanese vocabulary, emphasizes the impossibility of the convergence of two lines, hence implying either opposition or confrontation.

Since scientists and engineers use either Western languages or Japanese in such a way as to maintain standards of Western logic, we have developed a dual structure of communication—that employed by Japanese who are well acquainted with Western forms of logic and that used by other Japanese. To add complications, there is a dual structure in the use of the first person, one kind of logic dictating certain usages in communication with the outside world and another for communication with one's own groups. If one confuses the logic used by a person in communication with the outside world as being the logic dominating Japanese thinking patterns as a whole, the result will be not only a misinterpretation of Japan but also misunderstanding of that person's ordinary behavior.

A corollary to the Japanese attitude toward language might be called the "esthetics of silence"—making a virtue of reticence and a vulgarity of verbalization or open expression of one's inner thoughts. This attitude can be traced to the Zen Buddhist idea that man is capable of arriving at the highest level of contemplative being only when he makes no attempt at verbalization and discounts oral expression as the height of superficiality. The esthetics of silence does not necessarily indicate that the Japanese are not easily moved. The desire to depend on others is fortified by the assumption that the other fellow will understand without spelling out what passes between them, and it also involves sincere regard for his feelings. Ruth Benedict explains the discrepancy between the English word "sincerity," for example, and the Japanese word *makoto* or *seijitsu* as the difference between the belief in the value of honest or frank expression of one's inner thoughts and the Japanese tendency to regard such openness as insincere. The fact that words in the two languages which, according to the dictionary, ought to be equivalent are often antonymous represents a major problem in United States-Japanese communication.

Expressing one's inner thoughts is restrained not only to avoid hurting feelings, but also because of the fear that by opening up one's heart with full candor one might become isolated from the group to which one belongs. In the homogeneous society of former times, with a large population and scarce resources, limited opportunity for employment and no possibility to flee abroad, such isolation could have been tantamount to committing suicide. One factor in nonverbal communication is a concern about how one's words will affect the other person. An extreme form of this kind of guesswork can be seen in the "system of irresponsibility" in an analysis of prisoners during the war. The soldier would surmise what the NCO wanted done, the NCO what the platoon leader wanted done, the platoon leader what the company commander wanted done, and so forth, the ring of responsibility growing wider and wider until in the end it was impossible to locate the person with "final" responsibility.

Perhaps, considering the present positions of the United States and Japan, the Japanese have gone a bit further than necessary in conjecturing what the United States is thinking for the purpose of avoiding any action which might needlessly arouse American displeasure. This is a logical conclusion if one accepts the fact that even inter-

national relations have been seen as an extension of vertical relations at home. When this is coupled with a system of irresponsibility whereby one continually passes the buck to his superior on up the hierarchic ladder, the other side alone is held to blame when there is a serious conflict of opinion and the danger that this will lead to exclusionism.

One qualification for status in Japanese society is a person's ability to read others' thoughts simply by their facial expressions. This criterion can be appreciated by looking at idealized figures in Japan's history and legends. Today, those who consider their positions worthy of respect scorn verbal argument as silly, an indulgence for immature schoolboys. Such a person leaves verbal communication to his subordinates, muttering only a significant word or two at the appropriate time. And even before the word issues from his lips, his subordinates are prepared to intuit what he means by reading his facial expression. The heroes in Japanese movies and *kōdan* (narrative stories recited in a rhythmic chanting style) are always accompanied by people who do their arguing for them, these "assistants" often being loud, frivolous nobodies.

A similar arrangement exists in modern Japanese companies. A company conference, for instance, is a ritual carried on behind the facade of an ordinary meeting held to air views on the question at hand; indeed, there may be a good deal of energetic discussion and argument. In actuality, the process of meeting has no bearing at all on decisionmaking. The chief might never utter a word, yet everyone knows the proposal he favors and the meeting will conclude with unanimous agreement on it. The entire procedure presupposes a rather cynical view of the efficacy of argument or discussion which, after all, is only a human contrivance. The Japanese attitude toward contracts can be explained in these terms. The contract is just a lot of words; the reality exists somewhere apart from it. People who instinctively sense this are qualified to be leaders. Those who do not and persist in relying on pure reason find themselves in roles no higher than the buffoon or the stage manager.

To the extent that Japan's social structure determines its mode of external communication, there is little possibility that the latter will undergo any drastic change. Japanese leadership will continue to disparage articulate self-expression and will retain experts in external communication to present their cases. If the analyses offered by these "experts" are not accurate, there may be misunderstanding on the other side of the ocean. There is the further risk that, since these experts are not necessarily involved with decisionmaking, their pronouncements and the subconscious norms which guide the behavior of Japanese leaders will have little in common.

Some Concrete Proposals

Finding a solution to the communication gap boils down to whether or not the Japanese themselves can recognize the uniqueness of their patterns of communication, whether or not they are willing to go along with the majority rule in a diverse world, and whether or not they will strive, both individually and as a nation, toward the development of skills and attitudes conducive to self-expression. It also depends on American appreciation of Japanese patterns of communication. Though the problem is easily defined, practical remedies are difficult to formulate. However, certain actions by Japanese could improve the situation to a limited degree.

First, a need exists for the expansion and strengthening of Japan's cultural exchange activity. This applies equally to contacts with the United States and the rest of the world, and our neighbors in Southeast Asia in particular. Cultural exchange programs cannot compensate for the failure of an economic policy, nor should they become forerunners to a highly political and military-oriented policy. Still, it is disheartening that total public expenditures for cultural exchange are far below those of the rest of the world, at an annual level of slightly over 800 million yen. The number of officials working in this area, a mere 23 (compared to Great Britain's 4,000, for example), is also inadequate.

One reason for such a low level of interest in this kind of activity on Japan's part is the psychological inhibition against "blowing one's own trumpet." The principles of Japanese exceptionalism may be at work here—that is, the attitude that things Japanese are beyond the ken of foreigners who do not share the "same blood." (In fact, it was only recently that some of us have stopped marveling at a non-Japanese enjoying *sashimi* [raw fish] or speaking a smattering of the Japanese language.) The low level of interest may also be ascribed to a concept of culture as a luxury that should take a back seat to politics and economics.

Closely related is the problem of translation. Recent findings indicate that Japan ranks fifth in the world in translations of books into Japanese; in contrast, there has been a paucity of translations from Japanese into other languages (only 77 titles in 1968).

A second proposal would involve education. One indication of the parochialism of attitudes toward education in Japan is the fact that nationally supported universities cannot hire foreign nationals as permanent teachers or members of a research staff. A permanent faculty member of a national university is a civil servant, and a foreign national cannot, by definition, be so appointed. If students, in their intellectually formative years, were in constant contact with foreign cultures, either through their professors or colleagues, they would develop wider and more varied patterns of thinking. They would also experience firsthand the confrontation between different ideas in lieu of simply reaching easy compromise between what are basically homogeneous elements in Japanese patterns. A cross-examination of ideas would transpire and the expansion of intellectual vistas beyond our national boundaries would become a reality. Bearing in mind the rapidly shrinking distance and time between countries, the world in which these young people will spend the greater part of their lives will demand coexistence with heterogeneous groups, not only for their own survival but for the survival of the planet itself.

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Concepts of Length and Distance in a Study of Zulu Youths

H. W. Page

Cross-cultural research based on the developmental psychology of Jean Piaget has two aims: to test the universality of Piaget's system and to trace the development of particular concepts in different cultures. This study investigates the concepts of length and distance.

Programed questionnaire—The essentials of Piaget's clinical method were preserved in that subjects were given a concrete task to do and were asked to comment on and to justify their actions. A methodological refinement was, however, attempted. To retain the flexibility of the clinical method, but at the same time introduce the formality necessary for a comparative study, the interviews were designed as programed questionnaires, with the use of the format of the branching programs of machine instruction. Whenever a question was asked or a task set, the subject's response determined the next question or instruction in a sequence based on Piaget's theoretical analysis. At the end of the interview the experimenter was free to explore unforeseen situations.

Subjects—The subjects were 133 Zulu youth aged from 11 years to 20 years, with schooling ranging from no schooling to 7 years primary school attendance. Two rural samples, each of 40 subjects, and one urban sample of 53 subjects were recruited from the Botha's Hill and Underberg districts in Natal and from Kwa Mashu near Durban.

Each subject was tested in one 2-hour session on five experiments. All transactions were monitored by the experimenter, and an interpreter established rapport and presented the verbal material.

Theory and Observations

All behaviors were recorded and analyzed in accordance with the task-specific and stage-typical description given by Piaget. This is cast in four developmental stages: Stage 1, sensorimotor; Stage 2, preoperational or representational; Stage 3, concrete operations; and Stage 4, formal operations. The ages associated with these stages for Geneva children are 0–2 years, 2–6 years, 7–11 years, and 12–15 years, respectively.

It was difficult in practice to distinguish between Stage 1 and Stage 2 performances. However, all the behavior leading to "incorrect" judgments were confined to these two stages. Further, no more than Stage 3 behavior was needed as evidence of complete understanding of the concepts of length and distance studied here. These considerations, then, allow a classification of the behavior simply as pre-Stage 3 or Stage 3.

Generally, Stage 3 performance depends on recognizing that length is invariant, that $AB = BA$, that space can be mapped by unit iteration into an invariant plane (no longer topological), and that measurement does not distinguish between filled and unfilled space.

The Experiments

The first experiment considered concepts used in comparing the lengths of two segmented poles. The subject was asked to assemble a pole of the same length as a standard pole (24 inches). The standard pole could not be directly viewed from the table, and its base was placed at a 1-foot lower level. The subject was provided with segments of the pole, wooden rods of

various lengths, a meter stick, and a 12-inch school ruler. He could use these and move freely from the table to the standard pole.

The first part of the second experiment derived from the fact that the rectilinear distance between two objects is independent of any third object placed between them. The subject's understanding of this was questioned by placing two model trees, some distance apart, on a "field." Other models were placed between the trees, and reported changes in distance were noted. The second part required the subjects to look at a model representing a hillside with a tree at the top and another at the bottom. They were asked to consider the tree-to-tree distances up the hill, and down the hill, and to comment on their equality.

The third experiment considered concepts relating to the fact that the distance between two points depends on the path between the points, as well as their relative locations. The subjects were shown a board on which two pieces of wire were fixed with their ends aligned. One piece was straight and the other longer piece was bent in a zigzag path. Questions were asked about their relative lengths.

The fourth experiment was designed to discover understanding of the fact that the equality of length of rigid rods does not depend on the relative positions of the rods. Two wooden rods of equal length were placed before the subject. The rods were moved to various relative positions. The subject was questioned about the equality of length of the rods in the various configurations.

Two further investigations were conducted to discover to what extent the subject distinguished "looks different" from "is different." He was shown two rods, partially hidden by a flat board, so that one pair of ends was visible, with one rod projecting past the other, and asked to judge their equality.

The last part called for judgments of the relative lengths of the bars in a Muller-Lyer display. The apparatus was constructed so that the two bars were removable. The bars were shown to be equal by aligning them on a table in front of the subject, and then returned to the illusion. Ninety-two subjects who had initially reported inequality were then asked to distinguish between "looks longer" and "is longer."

The final experiment was designed to give the subject the opportunity to use unit iteration in judgments of distance along curved and straight paths. Equal length segments of a model train track were assembled into two parallel and equal lengths of track, but with their segments remaining discrete. The paths taken by two toy locomotives indicated the distances. One track was then reassembled into various configurations, and the subject was asked about the relative lengths of the tracks in terms of which locomotive traveled over the greatest length of track. Some of the configurations had more or fewer segments than the standard. Subjects could reach correct solutions by counting segments or by a one-to-one pairing.

Performance

Sixty-three of a total of 125 subjects were classified as pre-Stage 3. Eight subjects did not complete all the tasks and were not classified.

Pre-Stage 3 performance of the total sample was associated with rural residence.

The urban subjects, however, had more schooling, and a rural-urban comparison of subjects matched for

age and schooling did not show a significant difference.

A comparison of schooled and unschooled subjects, matched for age and rural-urban residence indicated a strong association of Stage 3 performance and schooling.

When the subjects with no schooling were excluded from the analysis, the rural sample showed no association of performance and amount of schooling.

A similar analysis of the urban data showed an association of pre-Stage 3 performance and amount of schooling.

The urban sample showed an association of age and Stage 3 responses when the data were split at the 14-year level, where the proportion of Stage 3 responses became greater.

No association of age and performance was evident in the total rural group nor in the rural group with no schooling.

Remarks on the method—Subjects classified as pre-Stage 3 earned this label by what they did do, rather than by what they neglected to do; they performed in ways described by Piaget and not simply "incorrectly." The programed questionnaires worked well; their administration was simple, and they yielded useful data. That no very young subjects were tested places a constraint on the interpretation of the results and many subjects behaved in ways usually associated with much younger children.

Conclusions—For rural youths, getting older did not guarantee the acquisition of more sophisticated concepts of space. Attending school did provide an advantage, although this was not proportional to the amount of schooling.

What may be a useful conclusion is that youths who grow up in town, attend school from an early age and associate the invariances of formal measurement with their "carpentered world" environment are able to progress from the egocentric, topological concept of space to the abstractions of the Euclidian one.

"Almost word-for-word translations" of answers were given to the same questions by Swiss children. Swiss children attained the levels of development at a much earlier age than the Zulu groups, but the constraint imposed by the choice of subjects does not allow this to become a generalized conclusion. In Piagetian terms, many of the subjects did not regard space as a homogeneous unity and relied on a perceptual interpretation of filled and empty space. Neither did they conceive of fixed reference sites in space, independent of objects.

More generally, pre-Stage 3 subjects could not resolve the conflict of immedaite perceptions or idiosyncratic associations by reference to a formal system. For Piaget, the discovery of such a system depends on personal development. The findings of this study may be more easily accommodated in a formulation wherein the formal system is developed within a culture and is then meshed with the discoveries of personal experience.

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Psychopathologic Study of Obsessive-Compulsive Neurosis in Taiwan

Wen-Shing Tseng

In this present study, 10 cases of obsessive-compulsive neurosis were selected for analysis in an attempt to gain more knowledge about the psychopathology of mental illness. The obsessive-compulsive neurosis was selected because it has a more clear-cut clinical definition and diagnostic criteria than other kinds of mental illness. Since the obsessive-compulsive patients suffer relatively less in terms of confusion with reality, they usually can provide reliable information on their past history and intrapsychic material for research. It is understood that the cause of this illness is rather psychologic in nature; thus it is worthwhile to study this illness from both psychological and sociocultural points of view.

Numerous studies have been carried out, and several theories have been presented regarding the obsessive-compulsive neurosis. While psychodynamic theories were based on the study of patients in Western culture, it is interesting and possibly worthwhile to attempt to understand Chinese psychopathology regarding the obsessive-compulsive neurosis.

Sample—In the present study, 10 cases of young male Chinese with obsessive-compulsive neurosis in Taiwan were selected for intensive study. The cases were selected in such a way that not only the patient himself but his parents and siblings could all be interviewed, examined, and compared.

The obsessive-compulsive patients were all young males between the ages 18 and 30, whose educational background was at least grade school. Obsessive-compulsive patients in Taiwan are usually young males, thus, the sample represents fairly well the general picture of the obsessive cases in Taiwan. These 10 patients had been undergoing psychotherapy for periods varying from 3 months to 2 years.

Among the 20 parents, none were obsessive-compulsive neurotics. The siblings over 15 years old totaled 17; among them, six had manifested subclinical obsessive-compulsive neurotic symptoms a brief period of time in the past but their symptoms disappeared spontaneously.

Data collection—In addition to the individual diagnostic interview for clinical evaluation and for obtaining information about personal history, interpersonal relations, and the nature of problems, the Chinese edition of the 16 PF (Sixteen Personality Factor Questionnaire) was administered to each subject in the study.

Family Characteristics

The parents—In spite of the traditional concept that Chinese women are supposed to be submissive and play the accessory role in the family, in this study the housewives were the most influential among the members of the family in terms of emotional life. There existed close relationships between the mother and the patient (her son), while the father, either being frequently absent or being submissive in relating to the child, left the son to be intensively influenced by the mother both in emotional and behavioral aspects.

Neither the father nor the mother was an obsessive-compulsive neurotic case from the clinical point of view, but an interesting point is evident in terms of their personality traits. The

mothers' personalities as a whole were characterized by: a high C factor (emotional stability, or ego strength), emotionally mature, stable, and calm; high Q_3 factor (high self-sentiment formation), controlled, exacting will-power; high G factor (character, or superego strength), conscientious, persistent, consistently ordered; and low I factor ("harria"), tough, realistic. In other words, the patients' mothers have common personality characteristics, being well-controlled in emotion, will, and conscience. This fits the clinical description of the obsessive personality, but not obsessive neurosis.

The mothers were described by the patients and their other children as worriers, overcautious, and overconscientious when they related to the children, particularly to the patient-son. This implies that the mother has the potential to become emotionally unstable in certain situations.

Regarding the fathers, in contrast to the mothers, no particular or extraordinary common personality trait was found, except that they were submissive. The personality profile of the fathers was flat in general, except for an extraordinary low E factor (submission), mild, dependent, and not self-assured. This fits the clinical description made by the children, although some of the fathers were observed to be obsessive in terms of reasoning, orderliness, and control.

Among the 10 couples, four were apparently unhappy since the beginning of their marriage, one of which had ended up in separation; two pairs were characterized by frequent and long absences of the fathers due to occupation.

The patients — The patient-sons were described by their parents as having several characteristic personality traits which were observed before age 5 which were significant in the subsequent development of obsessive neurosis for this particular child. These early personality traits described are: very timid and fearful (five cases); very obedient and submissive (four cases); excessively thoughtful and sensitive (four cases); having peculiar habit (four cases); being competitive and a poor loser (three cases); and very aggressive and impulsive (one case).

Some of these early personality traits were reported in some of the patient's siblings by their parents but none were recognized as severe. When they grew up, they showed characteristic differences from the patient-son. Results of the 16 PF test revealed that siblings who were not obsessive neurotics were different from the patients in that they were sociable, easy-going (higher A factor), cheerful, happy-go-lucky (higher F factor), less emotionally unstable (C factor), and not tense (Q_4 factor).

The mother-son relationship—There are common characteristics in the relationships between the mothers and the patient-son that contribute to the formation of pathology within the personality of the sons and development of obsessive-neurotic problems afterward. "Mother" refers to the natural mother and any mother substitute who takes a part in childrearing.

Excessive intimacy and delayed separation—The Chinese baby is always carried on his mother's back while she works, and he sleeps with the mother at night. But this kind of physical intimacy is usually terminated before age 3 or 4. In the cases represented here, this kind of physical closeness took place more intensively and frequently and terminated much later than usual. One patient was carried by the grandmother on her back almost all day until the age of 5, because he was her eldest grandson;

she did so as a way of protecting him as her most important grandson. One patient slept with his mother in the same bed until the age of 11; another until the age of 14. This is tolerated by the fathers. This phenomenon is pathologic and influences not only the son's psychosexual development but also personality development as a whole, particularly in terms of independence and tolerance of stress.

Excessive worry and fear of physical harm—The mother who is supposed to be emotionally stable may turn out to be apprehensive about the child when there is tension within the family. The mother's worry is focused mostly around the child's physical condition. If the child is slightly ill, or even not ill at all, she will let the child take medicine or will take the child to see the doctor. As the result of the mother's attitude, the child will be influenced to develop apprehensive ways of viewing things and tend to become a worrier too.

Restriction of normal physical activity—Associated with the overworry, the mother tended to restrict the child from normal activity. The sons were not allowed to go camping, swimming, or make trips with their peer groups. One child was not allowed to play outside of the house even when he was older than 10. When he insisted on going fishing at age 15, he was allowed to do so under the condition that he be accompanied by his grandmother. The restriction may extend to eating habits. In three cases, the mothers restricted the amount of many kinds of food including eggs, fish, or fruits the child could eat and also restricted eating of these foods to certain times, with the fear that the foods might cause physical illness if eaten improperly. This happened to the child who had frequently been ill since birth. Chinese parents in general do not actively encourage outdoor activity for their children. But it is unusual for the parent to restrict the child to the extent that occurred frequently in our cases. The patients were not only deprived of normal physical activity but were led to become overly concerned with a taboo about going out. They consequently developed feelings of inadequacy and vulnerability when they did venture out.

The mothers always remind the child to be good, to behave right, and to be successful—The parents of these patients had particularly high expectations. The patient's mother reminded him to make good friends, to be a nice boy, to study hard to get good marks, to be patient, not to fight with any one, etc., so persistently that she was described as nagging and too critical by the children.

Insistence on regularity in routine daily life—The mother asked the children to go to bed early, to wake up early, to dress neatly, to eat regulated amounts of food at regular times.

Aggressive and punitive to the children—There were only two cases of mothers who were excessively aggressive toward the children and administered severe physical punishment.

Superstitions—In these cases the mothers instilled in the child superstitious beliefs and practices.

In general, the patients are raised by the mothers in such a way that they are timid, insecure, and apprehensive, and combat stress with excessive regularity, cautiousness, and rigidity. Thus, these early personality traits become exaggerated and aggravated by the mothers' childrearing styles.

Factors that intensified the mother-son relationship—Several factors influencing the mothers' emotional stability led them to relate to their

children in unusually close and unhealthy ways. No matter whether there was an unhappy marriage, a submissive father, or a frequently absent father, the result was not only that the mother's nervousness was intensified because she became the only person responsible for the children but also the mother's pathologic tendency increased.

Factors that led the mother to focus attention on a particular child—The mother's specific attitude and relationship toward the patient was not manifested in her relationships with the other children. She had the tendency to become intensively involved with a particular child, who eventually became the patient. There are several notable aspects that made the mother focus her attention to a particular child.

The special sibling position—The patient, as a child, possessed a special position in the family that resulted in excessive attention being paid to him by his mother and/or grandmother.

Early physical problems—These patients, as babies, had some kind of physical problems; consequently, they needed their mothers for special care from birth.

Character difference—These patients were preferred by the mother over their siblings because of a character difference between the patient and his siblings early in childhood. The tendency for the mother to relate intimately with a child is more a matter of degree rather than an all-or-none tendency. Therefore, the rest of the children may be involved and influenced by the mother to some extent, resulting in the development of some subclinical cases. These, however, tend to be relatively mild cases, and the patients tend to recover spontaneously.

Symptoms and Problems

Nearly half the patients studied manifested obsessive symptoms early in boyhood. Some were compelled to smell coins, to touch things, or to use a certain pair of chopsticks for meals —habits whose origins and meanings are difficult to trace. Others manifested the habit of spitting, washing hands with alcohol before a meal, or correcting calligraphy repeatedly, all apparently the results of imitating adult behavior or demands by the adult initially and later manifested as a compulsive habit.

Most of them begin to manifest obsessive ideas and/or compulsive symptoms that are related to sexual problems after the period of adolescence. The symptoms are concerned with the fear of contracting venereal disease, nocturnal ejaculation, sexual impotence, causing pregnancy, or his mother being raped. Some symptoms are obvious reflections of sexual problems, while others, such as fear of being contaminated with dirt, compulsive washing of hands and face, and checking doors repeatedly are less obvious.

Through the course of psychotherapy for these patients, it was found that, in general, the cases manifest the anxiety stage and then hypochondrical stage after the disappearance of obsessive-compulsive symptoms, leaving the basic personality problem of low tolerance to insecurity and dependence.

From the patients' information and clinical observation it can be summarized that the basic common problems are: timidity, insecurity, and fear; dependence and vulnerability; suffering from psychosexual problems; and overcautiousness, rigidity, and self-control.

Discussion of Findings

Constitution and environment—From the present study, it can be said that obsessive neurosis is not passed on from generation to generation as a disease entity. The genetic factor is not sufficient to cause an obsessive neurosis, although it might predispose a personality to manifest certain traits that could lead to an obsessive neurosis after exposure to an environment in which a neurotic stress reaction pattern is established.

Mother-son relationship—The outstanding finding about the early experience the cases have in common is the intensive, intimate, and prolonged mother-son relationship. This can be viewed either as the consequence of the mothers' reaction toward the pathologic child or as the causal phenomena resulting in a pathologic effect upon the child. Dynamic study of male homosexuality, antisocial personality disorders, and schizophrenia all reveal that the intrafamily situation is characterized by the close mother-son relationship and a detached father-son relationship. This indicates that there is the need to determine what factors in the mother-son relationship lead the son to manifest a particular kind of mental illness.

Theory of obsessive neurosis—Although the psychoanalysts view the obsessive neurosis as anal-sadistic regression and attribute great importance to toilet training in infancy in the development of such a tendency, the present study indicates that the matter of toilet training is not as important for the Chinese cases as in Western cases. As a rule, Chinese parents do not impose strict toilet training on the child when he is very young. Instead, the obsessive Chinese mother pays attention to control of other aspects of her children's upbringing, especially to neuromuscular as well as oral control. The children are taught not to go outside the home, not to express aggression openly, and to be concerned with what to eat, how much to eat, etc. Therefore, the problem of obsession should be considered in a broad view as involving the matter of controlling one's own inner desire to fit with external regulation rather than the matter of cleanliness or toilet training.

Sociocultural factors—Through the present study, it is shown that sociocultural factors contribute to the psychopathology in many aspects. For example, inherent in the custom of the grandparents living with a young couple is the potential problem of overprotection by the grandparents; the custom of emphasis on the importance of having the son succeed the family clan frequently creates the atmosphere of tension and favoritism; or the habit of letting the children sleep with the parents makes it easier to prolong the intimate mother-child relationship. Thus specific aspects of a sociocultural system offer ways for an individual or a family to meet certain kinds of stress or so develop some kind of pathology.

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Heroic Ethnocentrism: The Idea of Universality in Literature

Charles R. Larson

I have been disturbed about a concept used in discussions of literature and in critical interpretations of the written word: the idea of universality. In part, my questionings are the result of teaching students overseas, in Africa, and spending a number of years studying the emergence of contemporary African fiction. If there is any one thing that I have learned, it is that our concept of universality rarely takes into consideration the experiential aspects of a culture that may, indeed, shape our interpretations of a piece of literature. What an African experiences when he reads a piece of literature is often not what we who are "Western" experience, and vice versa.

In 1962, when I began teaching English literature to high school students in Nigeria, I encountered a number of stumbling blocks, which I had not anticipated—all of them cultural, experiential. This was not a matter of science or technology and their by-products as I had anticipated ("What is a flush toilet?") but matters related to what I call culturally restricted materials. It was enough, to be sure, for my African students to read a 450-page Victorian novel (required reading for the British-administered school certificate examinations); and, as I later learned, in the lower levels, students were accustomed to taking several months or the greater part of a year to read and discuss the plot line of a single novel. Length alone was enough to get them, since English was their second language and the problem of vocabulary was especially troublesome. But once the problems of language, vocabulary, and verbosity had been overcome, reading through the words became a less difficult process than understanding what the words themselves related—the "experience of literature" as we say.

"Excuse me, sir, what does it mean 'to kiss'?" That was a more difficult question to answer than the usual ones relating to the plot or the characters of the novel. So I brushed the question off until it was repeated and I began to realize that all my students had no idea of what it meant to kiss. This seemed odd because most of my students were in their late teens—some in their early twenties—and I had heard them talking about their girl friends. It was rumored that several boys were married, although by regulations they were not supposed to be. Nevertheless, that question and others of a like nature kept recurring—in part, because we were reading Hardy's *Far from the Madding Crowd*. Why did Hardy's characters get so flustered when they were kissed (or when they weren't kissed)? When I asked one of the European-educated African teachers why my students seemed ready to return to that same question, I was more than surprised to learn that Africans, traditionally at least, do not kiss; to learn that what I thought was "natural" in one society is not natural at all, but learned, that is, cultural. Not all peoples kiss. Or, not all peoples have learned to kiss. (When I attended American movies with Africans, I could understand why the audience often went into hysterics at the romantic scenes.)

How was one to read a Hardy novel with all those frustrated kisses without having been kissed? How was I to explain this to my African students? Or, to limit my experience to a more technical matter concerning the novel's

form which perplexed my students, what about those descriptions for which Hardy is so celebrated? My students couldn't understand what page after page of description of the countryside had to do with the plot of the novel. What they had given me, as I learned, was another clue to the differing ways in which culture shapes our interpretations of literature. The fact that descriptive passages were nonexistent in African fiction seemed puzzling to me, since the first generation of African Anglophone novelists, at least, had been brought up on the Victorian novel. Other elements of the Victorian novel had found their way into the African novel, description had not. Could it be that this omission in the African novel revealed something different between African and Western attitudes toward nature, toward one's environment?

Kissing and description, attitudes toward love and nature—are these attitudes *so* different for the African? Is the African way of life less sophisticated than our own? Or is the belief that these supposedly "universal" attitudes should be the same as ours the naive one? Perhaps the term is meaningless. People love and die in every culture. Their reactions to these events, however, may be significantly different from our own. And these reactions, in turn, shape their interpretations of literature.

For the most part, the term "universal" has been misused when it has been applied to non-Western literature, because it has often been used in a way that ignores the multiplicity of cultural experiences. Usually, when we try to force the concept of universality on someone who is not Western, we are implying that our own culture should be the standard of measurement. Why else would we expect all peoples to react in the same way that we do? It is for this reason, too, that I feel that Afro-American writers in the United States and in the Caribbean have a strong case when they argue that black experience—even in the Western World—is different from white experience and that black art should not be evaluated in the same ways as white art. But let us return to those so-called universal experiences of all literature and illustrate some of the ways in which they may be radically different—at least for the African.

In his preface to Tsao Hsueh-Chin's 18th-century Chinese novel, *Dream of the Red Chamber,* Mark Van Doren says, "The greatest love stories have no time or place." I doubt this, in spite of other Western literary critics, who have also said that the most common theme in literature is love. After reading dozens of contemporary African novels, I can in no way accept these assertions. There is at least one section of the world where the love story is nonexistent. I can think of no contemporary African novel in which the central theme can be called a "love story," no African novel in which the plot line progresses because of the hero's attempt to acquire a mate, no African novel in which seduction is the major goal, no African novel in which the fate of the lovers becomes the most significant element. There may be marriage, bride price, and an occasional tete-a-tete, but that is not the concern of the novel: It is something else. There are no descriptions of erotic love, no kisses, no holding hands. African fiction simply is not made of such stuff.

This does not mean that Africans do not fall in love with one another. It means that they are not preoccupied with romance in the way that our writers are. Marriage is for procreation, not for love, and, traditionally,

marriages were arranged. One gets married to have children because children are an assurance that the cycle of life will be continued. And if the African is an animist, children are his assurance that when he dies there will be people who will worship their ancestors, including *him*. So children are a necessity, and often a marriage is not binding until proof of fertility has been established. Worked out fictively, these cultural beliefs and practices alter the concept of love and romance in the African novel (and African poetry and drama), negating the importance of romantic love (nearly eliminating it), and increasing the importance of the children. of childbearing. This is not to imply that every good African novel ends with the birth of a child. It means that marriage is taken for granted, and the relationship between male and female characters is assumed also, placing an emphasis on what the African considers more important matters. (It is, of course, impossible for these statements to hold true for *every* African novel. I can think of one exception in the novels of Avi Kwei Armah, a Ghanaian novelist whose characters have been westernized, like Armah himself.) The important fact is that in dozens of African novels the romantic element is missing. And, conversely—the African reading a Western novel cannot understand why such a fuss is made about getting the lovers together.

Western romance is only one theme that may puzzle the African. He may have trouble understanding the lack of concern about death in some Western novels. Or, more likely, the Western reader may miss the significance of a death in a piece of African fiction. Our society has worked so hard to neutralize the shock of death that it is possible for us to miss the emotional overtones of African writing in which death occurs. Ousmane's story, "Black Girl," is one example. The story concerns a Senegalese girl, Diouana, who moves to Antibes when the French family she has worked for returns to France. Ousmane projects us into Diouana's thoughts, illustrating her excitement at being able to live in France. But Diouana's dreams become a nightmare. Overworked, isolated from Africans, called a "nigger" by the children, Diouana commits suicide by slashing her wrists. The Western reader may think that Ousmane's story is another melodramatic account of racial prejudice—which it is, in part. But it is also a story about modern slavery, and what that situation will drive the sane person into doing: taking his own life. Just as slaves jumped overboard to their deaths to escape slavery in the New World, Diouana takes her life to find release from her situation. But this is only a part of it, for in committing suicide—one of the strongest taboos in many African societies—she has temporarily released herself. She has trapped her ancestors, broken the cycle of life, and, if she is an only child, ended the family lineage. She has committed a terrible abomination, and the African reading the conclusion to Ousmane's story is horrified. It is, therefore, the religious overtone that the Western reader will probably be unaware of.

The power of the ancestors in relation to life and death is articulated—in Diop's story, "Sarzan." In this story, an African returns to his village after several years as a soldier overseas. Determined to civilize his villagers, he sets out to destroy the sacred village idols. But the ancestral spirits take possession of his mind and drive him insane. The power of the ancestors is so strong that it thwarts Sarzan's

plans for desecration of the sacred fetishes and drives him mad—the dead are alive in the trees, the water, the fire. In Africa the dead cannot be forgotten: They control the destinies of those who are still alive.

More important is the attitude expressed toward one's environment—nature. The African does not see the natural world around him as something that he is removed from but as something he is a part of. The piece of wood used for the carving of a mask is sacred because it incorporates the spirit of the ancestors—a part of the chain of life. For the African there is no ontological gap. He is as much a part of the natural world as his environment is a part of him—and, like love, nature is something taken for granted. So why does it need to be described? If a jungle is necessary in an African story, it is simply mentioned, but rarely described. Time and space are often treated in a way contrary to Western measurements, too.

I have been talking about two characters (Diouana and Sarzan) who are isolated figures, and yet I suggested that isolation in African literature is another theme that does not fit into the typical Western pattern. Isolation as a theme in African fiction is a red herring, unless the character has become trapped because of extraordinary circumstances. Diouana is one example, because she is in France, cut off from her people. If she were in Africa she would never have committed suicide; she would have quit her job. Sarzan is an exception because he, too, has been trapped by his exposure to the Western world. What is worse, he has rejected his own cultural values and his people—something Diouana didn't do. In a way, Sarzan's isolation is voluntary, self-inflicted in a manner one will never encounter in an African novel that does not emphasize the clash between Africa and the West. Isolation as a theme is missing from the traditional African world, which is oriented toward the group instead of the individual, and the mere idea of picturing the African character cut off from his group is an anomaly in itself.

The hero concept—the belief in the individual who is different from his fellowmen—is, therefore, alien to African life; and, as an extension of this, the hero in contemporary African fiction is for the most part nonexistent. The hero is almost nonexistent in contemporary Western literature, too, but his descendant, the antihero is very much a force to be reckoned with. This is not true of African fiction. Rather, it is the group-felt experience that is all-important: What happens to the village, the clan, the tribe. What the African novelist has usually been concerned with is the situation that has changed the group by the end of the story. The result may be called the "situational" African novel, dealing not with an individual character—except as a possible mirror of the group—but the group of people whose lives are altered because of the common situation they have undergone.

The situation of the African world under exposure to the West has been the most common theme of contemporary African writing. I have a strong feeling that there were heroes, or individuals, in traditional African life, but the need for survival reinforced the traditions of group solidarity. This exposure may be thought of as a kind of war—two groups of people fighting against each other—which is a collective experience in itself. I feel that the conflict in African fiction is often that of the "collective consciousness" facing potential destruction by Western life. At stake are the traditions of

an African group—one more attempt by the West to make all peoples in the world alike. Perhaps this is the theme (and central conflict) of all emergent literature. In Hyemeyohsts Storm's novel of American Indian life, *Seven Arrows,* a character says, "The whitemen are determined to destroy all People whose ways do not reflect their own." The pull away from the collective consciousness is so strong that many Africans (like Sarzan) have been unable to resist it. Only when they have been cut off from traditional African life do they realize how superficial the new world is. By that time, as in Diouana's case, it is too late.

There are descendants of the situational novel among the works of black writers in the New World. These works represent not so much throwback to a previous stage as the black American writer's belonging to the African collective consciousness, implying that the situation of the black man meeting the white man is not so different in the New World from what it has been in Africa. There is still cultural clash—with one group being told that its own heritage is inferior to that of the other.

If I have belabored these comments on the situational black novel it is because I believe that ultimately form and content may be reshaped by culturally restricted materials. The situational novel, whether in Africa or the New World, is most frequently typified by a looseness of structure, a deemphasis of character to the extent that there may be no central character at all. In the case of African fiction, because it is based on widely differing attitudes toward life and death, love and marriage, and an orientation toward the group instead of the individual, it seems even clearer that culture will be the determining factor in shaping one's interpretation of a piece of literature.

One begins to wonder if two peoples as different as Africans and Westerners will be able to read each other's literature and understand it. But this is not the question I started out to ask. Literature is not so limiting that only one interpretation is possible. We cannot all be African and Westerner, black and caucasian. What is important is that when we read a piece of non-Western literature we realize that our interpretation may be widely different from what the artist intended, and contrarily, that we should not expect people who are not of our own culture and heritage to respond in the same way that we do to our literature. What we mean when we talk about universal experiences in literature are cultural responses that have been shaped by our Western tradition.

Although most of the examples I have used are African, I would hazard a conjecture that the experience of other non-Western literatures (Chinese and Japanese, for example) will support this belief that the word "universal" is limited. For better or for worse, each of us was born into an ethnocentrically sealed world. The purpose of any piece of literature, no matter what culture it was produced in, is to show us something we were unaware of. Just as literature is a bridge connecting a life lived with a life not lived, so, all literature that is effective is a voyage into a previously untraveled world.

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A School for Medicine Men

Robert L. Bergman

This paper is an account of how a Navajo community set up its own medical school and how a *non*-Indian psychiatrist became involved in it. To understand what happened one must have some acquaintance with Navajo medicine.

Navajo practitioners generally fall into three categories. The herbalists know a variety of medicinal plants, which are used primarily for symptomatic relief. The diagnosticians are shamans who work by inspiration. By such techniques as hand trembling, crystal gazing, or stargazing, they divine the nature and cause of an illness and make an appropriate referral to a member of the third and highest status group, the singers. The singers (I will use "ceremonialist," "medicine man," and "singer" synonymously) do the only curative work, and it is a school to train them that I will discuss.

Navajo nosology classes diseases by etiology; identical illnesses often have similar symptoms, but they need not. An oversimplified statement of Navajo etiology is that disease is caused by a disharmony with the universe, including the universe of other men. A singer restores this harmony by performing a ceremony proper to the case. Little or no reliance is placed on herbs or other medicines and, as is the case with psychiatry (at least from the psychoanalytic viewpoint), this absence of organic measures confers high status.

No one seems to know how many ceremonies there are, but there are many. Important ones last 5 or 9 nights and are difficult and elaborate to a degree approached among physicians, I think, only by open heart surgery. The performance of a major sing requires the presence of the entire extended family and other connections of the patient. The family must feed all these people for days. Many of the people have important roles in the performance, such as chanting, public speaking, dancing in costume, leading group discussions, and other prescribed activities. For the singer a ceremony requires letter-perfect performance of 50 to 100 hours of ritual chant (something approaching the recitation of the New Testament from memory), production of several beautiful and ornate sand paintings, recitation of the myth connected with the ceremony, and management of a large and difficult group process.

Non-Navajo explanations of why this effort helps tend to be offensive to the medicine men themselves, and *their* explanations tend to be unsatisfying to us since they are based on the supernatural. The differences may not be as great as it appears. Navajos talk frequently in symbols: "We are glad you came from Washington to talk with us. There are many mountains between here and Washington," which translates, "Communication with the Federal Government is difficult. We are glad you are making an effort to improve it." They reject the notion that they are using figures of speech. They do not attach much significance to the distinctions among different levels of reality, and, like some poets, they reject any attempt to translate their words into ordinary language. Though it seems to me that their myths and chants are symbols of human social-psychological forces and events, they would regard such a statement as silly and missing the

point. Nevertheless, I will make a slight attempt in that direction.

The Rituals

For the past 6 years, I have been practicing psychiatry among the Navajo people. I have often referred patients to medicine men (who in turn occasionally refer patients to me). I have often consulted medicine men, and patients have often told me about the medicine men's traditional cures and their feelings about these cures. It seems to me, although my knowledge of the sings is limited, that the ceremony is almost always symbolically appropriate. Pathologically prolonged grief reactions, for example, are almost always treated with a ceremony that removes the influence of the dead from the living and turns the patient's attention back toward life.

It seems to me that the singers and we psychiatrists are the converse of one another with regard to our attitude toward ritual. To them ritual is the focus. Informal interaction with the patient and his family is considered important in an informal sort of way. Our ritual, which I would argue is fairly elaborate, is not taught as the central part of psychiatry; rather, interaction is taught explicitly to psychiatry residents. In any event the singers do manage an intricate family interaction that has several important effects: The patient is assured that his family cares for him; the prolonged and intense contact makes it inevitable that conflicts are revealed and, if things are handled skillfully, resolved; and a time of moratorium and turning point are established.

At the time I heard of the medicine-man school in 1967, I was already convinced of the value of Navajo medicine. I was influenced by my contact with a singer named Thomas Largewhiskers. Mr. Largewhiskers, who is now 100 years old, agreed to be my consultant and to teach me a little. I first looked him up after seeing a formerly psychotic patient who attributed her remarkable improvement to him. At our first meeting I tried to explain what I do and said that I wanted to learn from him. He replied, "I don't know what you learned from books, but the most important thing I learned from my grandfathers was that there is a part of the mind that we don't really know about and that it is that part that is most important in whether we become sick or remain well." When he told me some of his life story it impressed me that he became interested in being a singer when, as a young man, he had had an accident and the singer who took care of him explained that it had been unconsciously determined.

Mr. Largewhiskers and many other extremely old men are still practicing. There is a growing demand for their services—growing because the population is increasing and their belief in traditional medicine is continuing. The trouble is that young people are not becoming singers, largely for economic reasons. To learn to perform one short ceremony takes at least a year of full-time effort. To learn a major ceremony takes much longer. Almost no one can afford to give up earning a living for such a long time.

The School

The school is part of the Rough Rock Demonstration School, the first community-controlled Indian school. The School was started in 1965, when the Bureau of Indian Affairs (BIA) gave the buildings and equipment to a nonprofit corporation of Navajo leaders called Dine, Inc. Dine helped the Rough Rock chapter set up and elect its board of education (no one

on the original board could speak English and all were ceremonialists) and then contracted with the board to operate an elementary boarding school. Soon after the school began operations, the people became convinced that their ideas were taken seriously, and several local people suggested setting up the medicine-man school. It was pointed out at a board meeting that white people have medical schools and give students scholarships to attend them and that what was needed most on the reservation were new medicine men.

The idea was taken up enthusiastically and the details were worked out over the next year. It was decided to alter the traditional method of teaching and learning sings as little as possible. (The old way is by apprenticeship in the teacher's home.) Each medicine man would teach two apprentices of his selection; that is, application for admission would be made by trios consisting of a medicine man and two trainees. The board would select among them on the basis of the medicine man's reputation, the trainees' apparent ability, and the importance of and threat of extinction to the ceremony that was proposed to be taught. The medicine men were to be paid a modest salary and the trainees less for their subsistence.

Obtaining Funds

Since the Demonstration School started, I had been going once a month or more to consult with the counselor and teachers. I was asked to attend a meeting about the project, and my support for the proposal was enlisted. This was the first of several project discussions in which I took part, and ultimately the board included me in the proposal. It was decided that I should meet with the trainees to discuss non-Navajo medicine, particularly psychiatry. I suspect that my inclusion was a move to make the project look more reasonable to funding agencies.

I flatter myself that my colleagues in the school and the trainees have been glad to have me around, but I am sure that I have gained much more from this than they have.

The first proposal was made to OEO, which turned it down. The second proposal went to the National Institute of Mental Health (NIMH). This was accepted, although not, I suspect, without some trepidation. At the time of the site visit by NIMH it became apparent how many mountains there really were between Rough Rock and Bethesda, Md. The weather became very bad and the site visitors felt they were stranded in Albuquerque, which is 250 miles away from Rough Rock. Luckily the school board was able to go to Albuquerque, so we had a meeting. Two incidents seemed to epitomize the meeting. The first was a question from the visitors: "How can a project that supports the continuance of superstition promote mental health?" The reaction of the ceremonialist board members was more restrained than I had expected. They answered at length, and I added my endorsement. The visitors seemed satisfied. Later one of them said, "The project director is full-time, and the salary is $5000. Can that be right?" When that question had been translated, Mr. John Dick, the director, who was a medicine man and a former school board member, asked, "Is it too much?" I am grateful that the project was funded, and I know that the board is also appreciative.

The Training Program

The work began in 1969 and is continuing. There are six medicine men and 12 trainees. Most of the original

trainees are still in the program. One of the faculty members died during the first year and was replaced. The ceremonies being taught have been 1 and 2 nights in length, and almost all trainees have learned them. Soon they will be performing them for the first time. They will then go on to major ceremonies. Although the lessons (excluding the ones I teach) are conducted at homes scattered over considerable territory in which there are no paved roads, Mr. Dick maintains close supervision. As the trainees have progressed, he and other medicine men have tested them. My only criticism has been that Mr. Dick's supervision seems rather harsh at times. He has demanded continuous effort and has been hard on some people whom he surprised when he thought they should be working and they weren't. Still, the group's morale seems high. The program has been well accepted, and there will be a demand for the services of the graduates. Other communities are trying to start similar schools. Recently one of the medicine men had one of his students perform a sing over him.

My sessions are a full day every 2 weeks. I first met with the medicine men to describe what I intended to do and to ask their permission. They not only agreed to my plans but said they would like to attend with the trainees. Attendance has varied, but usually most trainees are present as well as three to five medicine men. During the first year I attempted to cover elements of anatomy, physiology, pathology, diagnosis, and treatment. I discovered that the group, including trainees, had considerable knowledge of anatomy and some of physiology. The medicine men and the trainees enjoyed trying out stethoscopes, otoscopes, opthalmoscopes, and blood-pressure cuffs. Microscope slides of blood smears and pathology specimens were also popular. In return I was learning more about ceremonial practice.

One of the high points of the first year was a visit that the group made to the Gallup Indian Medical Center. It was characteristic, I thought, that the two things the medicine men most enjoyed at the hospital were an operation and a view of a sacred mountain peak from the windows of the psychiatric ward. They also had criticisms and suggestions. They were horrified by the pediatric ward because the children were so lonely. They kept asking, "Where are the parents?" They urged that provisions be made for parents to stay with their children. They also suggested that we build two hogans for ceremonial purposes, and remarked that they had performed brief ceremonies in the hospital but could do more in a real hogan. Their suggestion still has not been followed, but I hope that it will be soon.

During the second year I began discussing psychiatry, and there has been more of a two-sided interchange. We have spent much time on European and Navajo notions of the unconscious, a subject in which difficulties in translation have been great. Navajo metapsychology still eludes me, but it is clear that the medicine men know about the dynamic interpretation of errors and dreams. We spent a great deal of time discussing dreams and discovered that all of us followed the same custom with regard to them. We all spend our first waking moments in the morning contemplating and interpreting our dreams. One of the medicine men gave us an example. He had dreamt about an automobile accident and said that that kind of a dream meant something serious was going on within him and that in order

to prevent some disaster from happening to him, it was important to perform a chant about it.

There have been case presentations on both sides, particularly, for reasons not clear to me, regarding returned Viet Nam veterans. My feeling of trust and closeness to this group became such that I presented my own case, describing things that had led me to enter analysis and something of the analysis itself. When I finished this rather long account, one of the singers asked me the name of my analyst and where he is now. He said, "You were lucky to find a man who could do so much for you. He must be a very intelligent person."

Another high point for me was demonstrating hypnosis. The group ordinarily looks half asleep—as seems to be the custom with medicine men in meetings. This was unnerving, until I found out from their questions that they had been paying close attention. When hypnosis was demonstrated, they were wide awake, although at times I wondered if they were breathing. Working with a prepared subject (I was unwilling to face failure before this audience), I demonstrated depth tests, somnambulism, age regression, positive and negative hallucinations, and some posthypnotic suggestions. When I was done, one faculty member said, "I'm 82 years old, and I've seen white people all my life, but this is the first time that one of them has ever surprised me. I'm not surprised to see something like this because we do things like this, but I am surprised that a white man should know anything so worthwhile." They pointed out the resemblance of hypnosis to hand trembling, a procedure in which the shaman goes into a trance and his hand moves automatically and indicates the answers to important questions. After we had discussed the similarity, they asked that my subject, a young Navajo woman, diagnose something. I objected, saying that neither she nor I knew how to do this and that it was too serious to play with. They insisted that we try, and we decided that a weather prediction was not too dangerous. They were interested in the weather at that time because we were in the midst of a severe drought, and someone had predicted that it would continue for another year. When my subject was in a deep trance, I instructed her to visualize the weather for the next 6 months. She predicted light rain within the week, followed by a dry spell of several months and finally by a good rainy season. I make no claim other than the reporting of facts: She was precisely correct.

My involvement in this project has been extremely interesting. It is hard to assess its effects on the medicine men and on me. The medicine men say that they know better when and how to refer patients to white doctors, and I think they feel more kindly toward us. I feel better able to understand Navajo patients and know better when to refer them to medicine men. I have adopted some Navajo styles of thought. I use hypnosis more than I used to. And one of my Navajo colleagues in the Indian Health Service Mental Health Program claims that I try to act like a medicine man all the time.

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Witchcraft Practices and Psychocultural Therapy with Urban U.S. Families

Madeleine Leininger

Contrary to popular belief, witchcraft is not a unique behavior phenomenon restricted to primitive, nontechnological, or non-Western societies. Forms and processes of witchcraft continue to be found in highly developed and technological cultures such as that of the United States. Moreover, witchcraft practices and victims have been reported recently in almost every part of the United States in mental health clinics, general hospitals, community health agencies, educational institutions, and in social gatherings. Unfortunately, statistical data on precise witchcraft occurrences are not available. Since witchcraft is generally a highly secretive ingroup experience, and because victims fear that witchcraft may not be accepted by professional health workers, it often goes undetected and unreported.

There may be several significant reasons for the increased interest in and prevalence of witchcraft: The rapid movement in this country to reduce inequities and to provide equal rights and opportunities for all ethnic, cultural, and social groups has produced tensions and a fertile climate for witchcraft accusations. There has been a heightened interest and involvement in extrasensory perceptual experiences, transcendental media, and other forms of special psychic experiences, particularly by adolescents. There is evidence of an increased use of secretive and highly symbolic forms of communication in order to relate differently and intimately with humans, superhumans, animals, and nature. In recent years there has been a marked increase in a belief in astrology as a guide for one's actions and thought patterns. There is also an increase in the use of magical explanations by people who are nonscientifically disposed to explain unusual and unknown scientific findings. Many youths today are actively seeking and testing what is "real" and "not real," and in so doing, they may test witchcraft spells and incantations with their peers.

Finally, witchcraft practices may be increasing in our society in order to cope with problems related to acculturational stresses which may be exceedingly troublesome for some individuals and groups. Witchcraft behavior reveals the struggle to adjust to rural-urban acculturational situations.

Theoretical Framework and Empirical Phases

Witchcraft behavior reflects the process by which some individuals and groups experience psychocultural and social stresses which arise within a designated primary group (to be referred to as the ingroup). Later, these stresses are perceptually and cognitively displaced to a secondary group (to be referred to as the outgroup) which the primary group has known for some time. The term ingroup or primary refers to the initial locus of the family stresses, and the term outgroup or secondary to the group receiving the displaced stresses of the ingroup.

Phase one: The prewitchcraft stress period—Phase one of the prewitchcraft period was characterized by the intended victim and his family (primary ingroup) experiencing intense interpersonal conflicts which arose

from identifiable social, economic, and acculturational problems. An early sign of prewitchcraft stress was a decrease in the traditionally shared verbal communication among family members and a general distrust of each other's behavior. As the communication problems increased and the interpersonal stresses became more evident, the family members began to distort and misinterpret one another's behavior.

Economic stresses related to maintaining an adequate income were often a basis of quarrels and subtle antagonisms among the family members; but most importantly the families were in conflict with and/or ambivalent about "new" cultural values encroaching upon their traditional values. Generally, some of the younger family members would "try on" the new values, and sometimes the "new" ways of acting were challenged or suppressed when the behavior appeared out of harmony with past behavior modes.

Scapegoating behavior was clearly evident in the ingroup with one family member serving as the victim. This victim was frequently blamed for matters which were generally unresolved problems or conflicts which the total family needed to face. Because of the intense and largely covert interpersonal tensions and communication problems, no family member was able to assume a group leadership role to discuss these problems openly. Instead, the intrafamily tensions increased with the scapegoat victim being harrassed more and more by all family members. The family accusations became formalized, the tension mounted, and later the scapegoat victim became legitimately the witchcraft victim.

Phase two: Displacement to the outgroup—Phase two was characterized by the family ingroup members becoming increasingly angry with and distrustful of one another and finally displacing their feelings and problems to a known outgroup. The ingroup members continued to openly accuse each other of not helping and of not being concerned about one another's needs. Although all ingroup members tended to blame each other for their problems, the scapegoat member continued to receive the greatest share of blame. As the ingroup members became increasingly angry with one another, they withdrew in passive hostility to one another. In general, the ingroup members were afraid to express their pent-up feelings openly to one another, except for some periodic blasts of anger at the scapegoat family member.

Soon the primary ingroup began to cognitively displace its problems and feelings to a secondary outgroup. Outgroup members were distant kinsmen or a social group whom the ingroup had known for at least 6 months, and in most cases the ingroups and outgroups had been socially and economically dependent upon one another prior to the displacement phenomenon.

After the displacement of feelings and problems to the outgroup occurred, the ingroup and outgroup decreased their contact with each other. Gradually, they showed increased fear and open anger toward one another and accusatory statements were secretively passed between the two groups. The intense fear and anger between each group led to avoidance behavior, and soon the groups began to talk cautiously and secretively about one another.

Phase three: Identification of the bewitched victim, the witches, and the witch mediums—The third phase was characterized by intense ingroup-out-

group antagonisms and by identification of the bewitched victim, the witches, and the witch mediums. At this time, the scapegoat victim in the ingroup was clearly victimized and identified as the bewitched person. In all cases studied, the bewitched member was a female who was conditioned to assume the role because she had been the scapegoat family member, as described in phase one. The bewitched person became increasingly ill (emotionally and physically) as the witches in the outgroup were perceived to be affecting her in a covertly destructive manner. As the witchcraft accusation increased, the victim felt more and more frightened, helpless, and controlled by the outgroup witches. Witchcraft accusations and perceived malevolent acts were talked about by both groups in a cautious, angry manner, but without direct verbal exchanges. As the malevolent acts were perceived to increase, the ingroup noted that the bewitched victim became more acutely ill; as the acts decreased, the victim got better. The bewitched victim was sometimes brought to a hospital or to a mental health clinic for relief of her symptoms during the intense period of witchcraft accusations between the two groups.

During the third phase *witchcraft mediums* who had the power to transmit covert messages from the outgroup witches into the body or mind of the bewitched victim were also identified. As these frightening auditory and visual messages were relayed to the bewitched victim, she became extremely tense or openly aggressive. The witch mediums (usually one or two) were found in the ingroup and were thought to have been "chosen" by the outgroup witch to transmit her malevolent directives to the bewitched victim. That the witch medium was in the ingroup and near the bewitched person was terrifying to the medium himself as well as to the victim; neither the medium nor the victim thought they could change their roles—they, too, were helpless in influencing the witches to be less destructive and horrible. The witch medium was usually a female, often the mother or an older sister of the victim. Thus tense daughter-mother relationships existed, accompanied with feelings of intense fear, helplessness, and hostility. All family members greatly feared the power of the witch mediums as well as the witches and thought that they themselves might become bewitched at any moment.

Psychocultural Approach and Therapy

The author attempted psychocultural therapy with six families (four Spanish-speaking and two Anglo-American families) in their homes. She saw each family about 3 hours each week (two sessions) and for a period of 4 to 8 months of therapy. The therapy with the Spanish-speaking families will be described in this first section, followed by a brief account of one of the two Anglo-American families.

In working with all cases, the author was identified as a professional nurse who had come into the home to help and study the sick member of the family. The Spanish-speaking families identified her as a *medicas*—a person who combined indigenous practitioner skills with professional practices; whereas the Anglo-American families saw her as someone providing help in a "crisis situation." In working with the families a psychocultural nursing therapy approach was used, employing psychotherapy methods and cultural data such as kinship ties, ethnohealth

beliefs, economic aspects, social concerns, and religious beliefs. The families seemed responsive to this comprehensive and multidimensional approach.

The Spanish-speaking families—As the author began working with the Spanish-speaking families, she learned that two of the young females had been in psychiatric hospitals for varying periods of time. In each case, the victims' conditions had been diagnosed as "paranoid schizophrenia" and they had been dismissed with a "guarded prognosis." Their families felt that the hospital's professional staff had not helped their daughters.

The Spanish-speaking families seemed desperate for help since the bewitched victim in each family had not improved and the indigenous curers had "given up on the victim." Thus the climate for helping them seemed favorable.

At the start of therapy the author focused upon family ties and past relationships and took their genealogies. The latter seemed to be extremely important to the families, enabling them to tell about each family member and what had happened to them in recent months as well as to their family and friends. Furthermore, the genealogies were the key means for discovering the male and female witches as well as the witch mediums. When the families spoke about the witches, they whispered their names and always spoke of them with intense fear because of their great power and malevolent ways.

After the initial sessions using the genealogies and other relevant sociocultural data, the family members gradually became more at ease in talking about their family concerns and the sick members in the family. In a short time, they discussed the anger, fear, and distrust which existed among them. The author listened attentively to each family member's concerns, fears, and conflicts with no attempt to modify their behavior. Family members made direct and hostile accusations to one another, but especially to the bewitched victim. Initially, the victim was completely overwhelmed at these accusations and occasionally cried or left the room. Gradually, the author interceded in behalf of the victim and offered emotional and social support by protecting and defending her feelings. When this occurred, the victim's ego became stronger and more confident. She would talk in a more coherent manner and would try to handle the accusations that she felt were unfair.

During the course of the family "talk-out" sessions, the members discussed their problems, and there was evidence of conflict between their traditional cultural norms and the different sets of norms they were being exposed to in the urban community. Several common themes became evident in the family therapy sessions and will be highlighted and summarized below.

First, there had been unresolved family problems related to value changes and their ambivalence about changing traditional family relationships. For example, in one Mexican-American family the daughter was very angry with her mother for not permitting her to be more independent and "to be like other teenagers in the city."

Second, the ingroup families were feeling the impact of the diverse ideologies of the different people encountered in their work and school settings and they were experiencing ambivalence about changing their own values. The families talked about how much they valued the warm, friendly, and generous attitudes which they had

maintained traditionally with their extended family kinsmen. Lately, they felt these values were changing and that even their distant kinsmen (the outgroup) were becoming "cold, impersonal, and ungenerous people like the rest of these city people." It was, therefore, no wonder that the outgroup became the ingroup's target for the displacement of its angry, distrustful, and suspicious feelings.

Third, a series of traditional cultural norms had been broken in each of the family ingroups, and the witchcraft victim was blamed for breaking them. In addition, the ingroup had become emotionally tense with one another because of a "cultural awkwardness" in changing their life style from one set of norms to another. They did not seem to know how to act as they "tried out" new or different behaviors in the family context and they were uncomfortable with the new ways.

Fourth, as the ingroup families spoke about their angry and antagonistic feelings toward the outgroup, they were oblivious to the dynamics of their own internal family relationships and their displacement of family problems and hostilities to the outgroup.

In the process of working with the families, the specific incidents, problems, and feelings of the ingroup that seemed to have precipitated the cycle of events were dealt with. As a consequence, it was observed that as feelings of anger and hostility shifted from the ingroup to the outgroup, the ingroup members became more comfortable with one another and gradually began to work on their own problems. It was also apparent that as the ingroup dealt with their problems as a group, family unity and solidarity increased. It was, however, a difficult task for the therapist to help the ingroup see the relationship between their own behavior and the displacement of problems to the outgroup. This goal was not achieved until after the ingroup learned to trust each other and work as a family unit again.

During the therapy, as the victim challenged family members, the author encouraged her to express other feelings and reassured her that other family members would not be allowed to harm her. The families also talked about the economic pressures they had experienced. They had expected their outgroup friends to help them economically; however, the outgroup was unable to provide the gifts, food, or help that they had earlier. Hence, the ingroup began to realize that their expectations of the outgroup were probably unrealistic and that they would have to deal with their own problems as best they could.

The author talked with some outgroup members who were accused of acting malevolently toward the group. Interestingly, the outgroup members were aware of their culturally defined role in witchcraft and that there were witches among them who were causing harm to the ingroup victim and his family. They were, however, very cautious in talking, since they had never experienced an "outside professional" person who wanted to help them with "their witchcraft." Two outgroup "witches" said that they were acting protectively in order to control the behavior of the ingroup whom they greatly feared; they did not mind being accused of being witches since they felt they were protecting their families.

Occasionally, members of the ingroup would meet or see a member of the outgroup at the store, church, or school. There was always great fear of each other and efforts were made to avoid direct contacts—even

if it meant walking or driving several blocks away from the person. In general, the group and outgroup members were not able to confront one another about their actions and feelings. The author chose not to work with the outgroup members but rather to help the ingroup members modify their behavior so that they themselves could deal with the outgroup in time—which did occur in the majority of families.

With two of the Spanish-speaking families, a large black cat was the symbol which indicated that the family and home were bewitched. In one of these families the ingroup believed that the black cat had been sent by the outgroup witches. They contended that the outgroup had broken a window and dropped the cat in their basement. Initially, they were terrified of removing the cat; instead, they kept the cat well cared for and fed each day. Finally, as their group unity increased, they decided to release the cat from the basement, after which the victim's husband repaired the window. The decision to remove the cat caused great fear; however, once they felt "strong enough" to remove the cat, the ingroup became greatly relieved and more relaxed in their home. Symbolically, it meant that the outgroup was no longer living in their basement since the cat was the symbol of oppressive witchcraft practices from the outgroup which brought harm to the bewitched victim and the family. Removal of the cat was a significant factor in achieving a positive direction in the family therapy. The therapy or treatment goals were: to provide expressive therapy for the ingroup members by focusing upon their social tensions and daily living problems; to provide an emotional supportive relationship using cultural referents for an extremely harrassed bewitched victim; to assist the group to cope with acculturation changes and the concomitant shift in value orientations; and to help the family to function again as a viable and cohesive social group under the duress of cultural changes.

Anglo-American families—In the two Anglo-American families I found similar dynamics in operation as noted with the Spanish-speaking families. Although there was some variation in the linguistic expression and symbolic cultural forms, the same ingroup-outgroup theoretical model was used and similar therapy goals were applied. Only one of the families will be discussed.

Reo, a fictitious name, was a 21-year-old college student who had lived in a small midwestern rural community. According to Reo and her family, she had been "hexed" by two college students (referred to as the "hex-witches") at the end of her first year of college in a large urban community. The family had taken Reo to a psychiatric clinic because "she was acting strangely toward us and her classmates." During the interview with the clinic staff she said she had been "hexed" by some classmates who were distant friends, but with whom she had quarreled prior to being bewitched. Since then, Reo felt that these two "witches" were acting unfriendly toward her and influencing her behavior "from a distance." With her closest classmates and family she felt she was being accused of things she did not do. (Scapegoat behavior toward Reo was evident within her family and close ingroup classmates and was based upon social tensions and interpersonal antagonisms.)

Reo said that previously her "close classmates" and family had been good, dependable persons, but lately they seemed to be suspicious, unfriendly, cold, and even fearful of her. She

told the clinic staff that one "hex-witch" was forcing her roommate and her sister to influence her (Reo's) thoughts and actions. The clinic staff diagnosed her case as "paranoid schizophrenia with a guarded prognosis." She was sent home after 2 weeks of hospitalization and was told to return "if things got worse for her and the family." Things did seem to get worse and they returned to the outpatient clinic where the author agreed to provide therapy in the home.

The family members desperately wanted help because they were very frightened of what Reo might do to herself or to them and commented that "we believe she is being influenced by that college group (outgroup), but we don't know what to do about it and what she might do."

After Reo was "hexed," she gradually withdrew from her classes as she became more emotionally disturbed and experienced periodic episodes of nausea and vomiting. Reo also feared she would encounter the hex-witches on the campus and she was most fearful of what they might do to her.

Reo explained how she had been initially victimized by a large black spider. She said her distant college "hex-witches" had put the spider on her dormitory door, after which "she knew they were going to cause her harm." She also told how this college outgroup had once been kind to her, but had become harsh and unkind. Reo felt her older sister was also involved in making her ill since her sister also knew this college outgroup. Reo thought the latter were sending messages through her sister.

The changes taking place in Reo's family life were similar to those taking place in the Spanish-speaking families. Reo's family also had moved from a rural to an urban community, and they were encountering acculturational stresses and conflicts in rural-urban value systems. They found rural life with its warm and friendly neighbors a real asset in contrast with their cold and busy city neighbors whom they did not know. Nor could they depend upon their city neighbors in times of crisis. They had had many ambivalent feelings about sending Reo to college, and they had two other daughters who would soon be ready for college.

All adult family members were employed in semiskilled and unskilled jobs. They often left the house at 7 a.m. and returned at 6 p.m., having little time to discuss their family problems and be together as a group as they had been previously in the rural community. Economic problems were evident and they were deeply concerned about how to make a living in the city. There was no question that many of the initial problems which were related to witchcraft had begun with ingroup family problems and interpersonal tensions. Even before Reo was "hexed," the family relationships had become tense with the family members growing increasingly irritable, impatient, and suspicious of one another. Reo was the family scapegoat member who received their accusations. The displacement to the college outgroup occurred after the family social tensions had become unbearable and the family members were unable to talk with one another without quarreling or fighting.

Reo's college outgroup also spoke about the noticeable change in Reo's behavior. They said they had become frightened of her and decided to "leave her at a distance" since they "could no longer understand her." They did feel that they sent "wavelengths" to her and were influencing her behavior unfavorably by the use

of "transcendental power communication modes." Later they asked about Reo's health and wondered if they could "use their power to help her get well." They had been very angry with her because "she did not treat us fairly and was unkind, scary, and uncharitable to us." They also admitted that they had placed the black spider on her door because "we wanted to scare her."

In working with Reo and her family, the same approach and goals described above were used over a period of 4 months. The family also was sensitive and secretive about sharing their "family problems with the whole hospital staff or psychiatric group" as they were sure the staff "would not believe" their daughter was hexed, and did not know "how to help her." Perhaps because they desperately wanted help, this family responded quite readily to family therapy given in their home. Family antagonisms gradually subsided, and the family was still functioning as a group 1 year after the author left them. Reo subsequently completed a college degree and another daughter has enrolled in college.

General Observations and Functional Analysis of Witchcraft Dynamics

The author observed that as the initial tensions and conflicts mounted in the family ingroup, there seemed to be no traditional institutionalized norms and practices which the family could rely on to cope with its problems. Moreover, the family contacts to obtain help from outside groups were limited because of the differing cultural norms involved. In general, the family members felt socially and culturally alienated and alone with their problems.

The displacement of anger and the maintenance of stresses between the ingroup and the outgroup were dynamic features of the witchcraft practices and had several important social, cultural, and psychological functions:

The displacement of angry feelings from the ingroup to the outgroup helped the ingroup become socially and psychologically more comfortable with one another and kept them united during the heightened ingroup conflict period.

The identified witches in the outgroup were important in explaining the sick victim's behavior to the ingroup; while this temporarily relieved the ingroup family members, it also disguised the family's critical problems.

The scapegoating behavior exerted upon an ingroup member not only localized the emotional and social conflicts of the family in one member, but it also prepared and conditioned the victim and the others for the roles they would play in the witchcraft practices.

Witchcraft practices were clues to cultural, social, economic, and psychological stresses which were extremely difficult for the ingroup to handle and required a nonfamily member to be helpful and objective.

Symbolic referents such as cats and lizards served the important function of legitimizing the witchcraft phenomenon and of alerting the victim and the family to difficulties with an outgroup.

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The Religious Functions of Psychiatry

Scott H. Nelson and E. Fuller Torrey

During the past 25 years in the United States psychiatry has taken over a number of functions that were previously in the domain of religion. This transition has occurred during a period in which the number of primary mental health personnel has increased from 14,000 to 100,000. In addition, the field of psychiatric theory and practice has been gaining increasing acceptance. Simultaneously the number of ministers and priests has decreased from approximately 250,000 to 200,000.

It should not be surprising to find some transfer of functions from religion to psychiatry, a branch of medicine. The history of civilization is filled with overlapping functions of the priest and physician, and in our culture and subcultures the differentiation has been wider in theory than in fact. For instance, among many fundamentalist churches and Christian Science, the religious and healing functions are fused. Among subcultures like the Navajo, the priest and physician are often one and the same.

Religion in all cultures is an experience and an institution. As an experience it is often described as an intense personal feeling that puts the person into a relationship with an "ultimate." The religious experience may be mystical and nonrational; it has been celebrated by poets, exalted by theologians, and analyzed by psychologists.

The religious experience is not the subject of this paper. Rather, we will focus on religion as an institution. As such it is an organized pattern of group behavior that is well-established, is an integral part of the culture, and serves certain functions. The thesis of the paper is that many functions previously carried out by organized religions have been and are being assumed by psychiatry. These functions can be categorized as explanation of the unknown, ritual and social, and the definition of values.

Explanation of the Unknown

One important function of religion has been to explain phenomena whose causes could not be easily understood. These were mostly natural events—lightning, thunder, earthquakes, comets, epidemics, drought. The priest was the person who interpreted these events, and his understanding provided reassurance that things were under control.

In more recent centuries many mysteries of nature have been explicated and the definition of the unknown has shifted to man himself. Priests were asked to explain strange human behavior; they did this by postulating that the person was possessed by devils and evil spirits. This provided reassurance and worked quite well until the present century, when devils and evil spirits lost status and credibility. A new solution to the problem of explaining unusual behavior was called for. Psychiatry provided the solution. People who behave strangely, psychiatrists assured us, have an illness of the mind. They are different from the rest of us in this regard, and the illness explains their strange behavior.

Psychiatrists increasingly have been asked to make such interpretations of human behavior. One of the first examples was the Leopold and Loeb murder trial in 1924. The country was horrified, since there was no apparent reason for the murder. The

defendants' attorney, Clarence Darrow, provided the answer. For the first time in an American court, he brought in psychiatrists, who claimed that Leopold and Loeb were "mentally ill." He did not claim that they were "criminally insane"—which they were not—but that they were "mentally ill." This illness of their minds explained and mitigated their crime. Darrow's resourcefulness was rewarded when his clients were saved from the death penalty. In the past few years, psychiatrists have been called by both sides in trials both to prove and disprove "mental illness" in the defendant. The psychiatric explanation of the unknown of human behavior has become a public spectacle.

Related to the explanation of the human unknown is use of psychiatry to substitute for the existential function of religion. In the past the question of "What am I here for?" was usually answered in unequivocal terms: "You are here because it is God's will." An increasing number of people now turn to psychiatrists for help. Such questions have become so common that a new brand of therapy—existential psychotherapy—has grown up.

Also allied to the mastery of the unknown are the qualities that people project onto the person who is the mediator with the unknown. Formerly this was the rabbi, minister, or priest, and he was respected, reverenced, and held in awe. When a person confessed to him, he was symbolically confessing to his "ultimate father." Many of these qualities have been transferred to the psychiatrist, who is usually highly respected and held in awe by his patients. The act of confession to a psychiatrist is often a powerful experience for the "patient." The conferring of magical qualities onto the person of the psychiatrist is such a common occurrence that it has given rise to a whole body of literature on "transference."

Ritual and Social Functions

Religion also has provided many ritual and social functions in American culture. In many towns the church remains the center of social activities. In frontier America it was often the only center aside from the saloon and brothel. The weekly pilgrimage to church accomplished many things, among which were satisfying the needs of the pilgrim for ritual and providing a meeting place with friends.

In recent years the church has lost these functions. The automobile and increased leisure have carried Americans past the church to many settings in which both ritual and social interaction may be found. Such settings include the community mental health center and the offices of private psychotherapists. These places function as the major social focus of patients' lives; the individual sessions are intermixed with group sessions, and participants await the next meeting. Community mental health centers may add outings and fundraising projects. Many people who would have belonged to church groups 25 years ago now belong to therapy groups, encounter groups, and sensitivity groups. Many churches have instituted encounter groups, free clinics, and counseling. This may be one way of reclaiming the ritual and social role for the church from the community mental health center and other mental health facilities.

Many problems that an individual brings to a psychotherapist are the same problems he brought to his minister or priest. These are the problems of living—marital and sexual difficulties, social and interpersonal failure, drinking, dissatisfaction with

the job, not finding any meaning to life, etc. The less severely disturbed person, therefore, who used to consult his minister or priest, now seeks out his psychotherapist.

Psychiatrists themselves use psychiatry to satisfy their needs in the ritual and social area. This is especially true in traditional psychoanalysis, in which Freud is revered in similar fashion to Jesus. Freud had his disciples, was betrayed by one (Jung), and left a body of writings that is accepted as the authority in doctrinal disputes. Not only can these writings be found displayed in virtually every psychoanalyst's office, but a picture of Freud often gazes on the proceedings. Furthermore, the analytic institutes are remarkably religious in character—authoritarian, with varying degrees of orthodoxy, open only to true believers, and with excommunication the fate for anyone who transgresses. It is little wonder that analysts who gathered at Freud's birthplace in Vienna spoke of him as "the Master."

The Definition of Values

The definition of values has long been a function of religion. Man has turned to rabbis, ministers, and priests for precepts of a moral life and a code of conduct. Christianity has provided much of this for America until the present, and evidence of its importance can be found in the schools, courts, and system of law.

Over the past 25 years, there has occurred a partial shift from religion to psychiatry in the influencing of social and individual values. Take abortion, for example. In 1947, abortions were condemned except where the life of the mother was threatened. Physicians caught performing abortions were usually imprisoned. Most religions stated that abortion was sinful and against God's will. Now a fundamental change has occurred. Psychiatrists have determined that women may become suicidal if a requested abortion is not granted; the pregnant woman is defined as being in a life-threatening situation. At the same time, psychiatrists have been introducing hypotheses suggesting destructive effects of being an unwanted child. The assertion of women's rights helped to swing the tide from the religious prohibition against abortion, and many States legalized it. Prominent in almost every case where the law was changed were psychiatrists, who helped to establish a new priority of values in which the rights of the mother supersede the rights of the unborn child.

There are many other examples of the influence of psychiatry on values. In the past the excess intake of alcohol was labeled as wrong because it was sinful. Now excess alcohol intake is a "mental illness" called alcoholism. Gambling is another example; prohibited by most Christian sects for many years as being the work of the devil, gambling has become widespread and generally accepted. Those who gamble to excess are victims of a "mental illness" called compulsive gambling.

Similarly, standards for obscene material have never been the subject of as much discussion as recently. The courts decided what was or was not obscene and based their standards on those that religions set. Recently, the clergy is not as often being asked what is obscene. Instead psychiatrists are being called into court to make this judgment. For instance, a psychiatrist called as a witness in an obscenity case testified that he "found no scientific value in these materials. . . . Let me say that anybody interested in this . . . is sick."

In these examples, and as our so-

ciety has become secularized, traditional values that have been rooted in the religions are being challenged and changed. And in many of them psychiatrists are playing an increasing role in determining both the process of change and the content of what the new values will be.

The purpose of this paper has been to describe a phenomenon—the transfer of many human functions from religion to psychiatry. No attempt has been made to place a value judgment on this phenomenon. Indeed, to do so would entail discussion and analysis of the historical antecedents of the transfer as well as its implications. It would raise legal questions about the relative merits of the insanity defense and of individual civil rights. It would raise sociological questions about the proper role of ritual in our society and of the best means to provide social groups for people. It would raise philosophical questions about the best way to set values for a society.

Let us accept that functions that had pertained to organized religions are now being practiced by psychiatry. What implications does this carry for mental health practitioners? For the clergy? How can the authoritarian basis of religion be utilized by humanistic and existential psychiatric practice? How can psychiatrists take advantage of the techniques used by the clergy? How can we teach our methods most effectively to pastoral counselors and others? How can the church be assisted by psychiatrists without losing its meaning and substance, and vice versa? Will psychiatrists venture further into interaction with other professionals such as the clergy and into unfamiliar, though potentially useful, areas of knowledge and practice, such as religion?

One method would be a mutual attempt to define the capabilities and limitations of each discipline. Similarly, functional roles should be established for psychiatrists, as well as for clergy. Psychiatrists are *not* experts at everything in mental health. They should provide those functions for religion and for other mental health-related disciplines for which their training has prepared them.

Finally, the emergence of psychiatry in areas occupied by religion should be viewed as an opportunity rather than with alarm. Each discipline fulfills needs of different individuals in different ways. The talents of each group must be utilized by the other to complement their own functions; neither should retreat into isolationism. Psychiatrists have been slow to warm to mutual interaction with other areas of mental health concern. If we fail to do this, we are in danger of becoming a religion in the worst possible sense—apart from and irrelevant to the individuals, groups and communities we are trying to help.

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Symptom Intensity and Life Events

Eberhard H. Uhlenhuth and Eugene S. Paykel

Various studies have focused on life situations as important psychological factors in the precipitation of a variety of physiological disorders, and the concept of circumstances as stresses leading to psychological impairment has been applied in a series of surveys of the prevalence of psychiatric disorder.

Since the development of a research methodology wherein stress can be evaluated independently of a person's reaction to the stress, reports have appeared linking illness and life events in various contexts. The present report confirms and extends the work of previous authors by demonstrating that life stress, defined as the degree of upset usually evoked by life events, is associated with psychiatric illnesses in general and with the severity of symptoms in persons who present themselves as patients.

Subjects—This study included 373 subjects at two university psychiatric facilities: 45 inpatients, 21 day patients, 147 outpatients, and 160 relatives of patients, mostly patients not associated with the study. Persons of either sex aged 15 through 70 and able to complete the questionnaire were considered eligible.

Assessment of symptoms—Patients' symptom levels were assessed by means of a checklist of 72 common symptoms. The patient reported how much each symptom bothered him during the past 7 days on a 4-point scale ranging from not at all (0) to extremely (3). Each checklist yielded scores on a scale of 0 to 3 representing five symptom dimension: irrascibility, somatization, compulsiveness, anxiety, and depression.

The symptom measures were regarded from two points of view: overall intensity and symptom configuration. The patient's mean score over all five factors was computed as an index of overall symptom intensity; the present report is confined to this aspect of the study.

Assessment of life stress—Life events over the past 12 months were elicited from every subject by means of a questionnaire listing 61 events. Subjects also assigned to each event a weight reflecting the amount of distress commonly associated with it. The list included life events ranging from the relatively unimportant, such as minor law violations and minor physical illness, to the catastrophic, such as death of a child and death of a spouse. A life-stress score over the past 12 months was computed for each subject by summing the stress scores applicable to all the events he reported during the 12-month period.

Results

Life stress by subject group—The mean stress scores in the four subject groups were compared. Statistical procedures adjusted for the effects of the following independent variables: sex, marital status, religion, race, age, and social class.

The entire pool of independent variables accounted for 19 percent of the variation in the subjects' stress scores, and the independent variables most reliably associated with the subjects' stress scores were sex, marital status, race, subject group, and age. The stress scores for patients, particularly day patients and inpatients, were higher than those for relatives even when scores were adjusted for the effects of the other demographic variables.

Symptom intensity and stress—The entire pool of independent variables accounted for 30 percent of the variation in overall symptom intensity among the patients in the study, and independent variables contributing most reliably to symptom intensity were sex, stress score, and the interaction between stress score and patient group.

Women reported higher symptom intensities than men, irrespective of their stress scores. The relationship between symptom intensity and stress score differed among patient groups (interaction): Inpatients showed no relationship, outpatients a moderate relationship, and day patients the strongest relationship.

Commentary

The results suggest that the amount of life stress per unit time helps to determine both the time of onset of psychiatric symptoms and their intensity. The strength of the relationship between symptom intensity and stress score among outpatients and day patients is especially impressive, since all of these subjects were self-selected as highly distressed by presenting themselves for treatment. The lack of a similar relationship among inpatients asks for an explanation. This apparent discrepancy might reflect stronger, possibly physiological, predisposing factors among psychotic patients who preponderantly constitute the inpatient group. Alternatively, the methods employed to assess symptom intensity and stress score may be ill-adapted to the more disorganized psychotic patients.

The sex differences, with women reporting symptom intensities about 25 percent higher than men, were highly reliable. This finding corresponds to previous reports on admission rates to psychiatric outpatient facilities, rates of visiting physicians, rates of prescription and psychotropic drug use, subjective reports of affects, and the like. What the present study can add is that life stress does not account for it. It appears to reflect some built-in characteristics of the sexes, whether biological or cultural.

Perhaps the most interesting results of this study were the unexpected variations in stress scores by sex, marital status, race, and age. A review of epidemiologic information about illness, and specifically mental illness, reveals that the distribution of life stress among demographic categories in the present sample tends to parallel indices of the incidence of mental disorder among demographic categories in epidemiologic studies. This parallel suggests that variations in a single variable, life stress, may account more parsimoniously and more significantly for some of the variation in the incidence of mental disorder commonly attributed to demographic factors.

A practical implication of the findings to date may be worth contemplating: Each person to a significant extent determines many of the life events to which he is exposed, for example, divorce, pregnancy, and job changes. Witn planning he often can maintain the dosage of life stress within tolerable limits. This is a practical strategy available to every individual for the primary prevention of psychological dysfunction.

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On the Possibilities of Self-Control in Man and Animals

David Premack and Brian Anglin

Most motivational processes are two-organism processes. This is true of reward and punishment and equally true of the aversive procedures, escape and avoidance. The reinforcer or punisher is vested in one organism; the performance to be punished or rewarded is vested in a second organism. The infant and the child are sufficiently monitored by second organisms to assure the contact upon which two-organism procedures depend; similarly, for institutionalized populations the procedures should be feasible. But are they applicable to society? Is the noninstitutionalized adult adequately supervised to be controlled by classic motivational procedures? Many social scientists think not, and have suggested that the control in society comes from mechanisms other than that of the external contingency. In one mechanism the individual believes in ghosts. In his own mind he is never alone. Watched over continually by ghosts or spirits, he measures his behavior against the criterion of these agents no less than against that of a supervisorial agent.

In a second system, the person believes in an omniscient God, who is not solely vengeful like the ghosts but is also merciful. Thus He not only punishes bad behavior but rewards good behavior.

The third system, dominant in Western culture, puts the supervisorial organism into the recipient organism. Called internalization or socialization, there are several theories, but the process has not been stated with as much straightforwardness as one would want. On the basis of what evidence do we infer socialization, and what are the conditions for bringing about that evidence? If the process exists, it should be possible to describe it with enough clarity so that it could be developed in an animal, or if the animal is incapable of the process, then it should be possible to show why this is so. That is what we are considering, though it will be necessary to pause and consider some related topics.

Sociology of Reward

Critics of the external contingency may dismiss it too hastily and may misunderstand the social structure of reward and punishment. The prototypic external contingency, contained in the mother-child relation, is not abrogated when the child leaves home. The child exchanges judgment by the mother for judgment by peers and others; at the same time he becomes a judge of others. No individual comes out from under the external contingency by leaving home. Nevertheless, these are merely plausible arguments against rejecting the external contingency as a feasible instrument for the control of a noninstitutionalized population.

But how many rewards or punishments do you receive a day, how many do you give, and what are the determinants of each process? The amusement or perplexity that these questions may occasion underscores our inability to answer them. Who rewards whom in an open society? What is the social structure of reward? No one appears to have the slightest idea of how many times he is rewarded or rewards someone else. Partly this may be so because as each person looks back on his day he is not sure what is to be counted as a reward, either from the point of view of a recipient or

donor. There is no book that could rightly be called the "Sociology of Reward," nor would it be an easy matter to write such a book.

What kind of data would such a book require? By the 1960's it had become popular to attribute "mental illness" to abnormal reinforcement histories. But what constitutes a proper or normal reward history? If an inappropriate reinforcement history could be compared with an appropriate one, then perhaps we could say what deviations man can tolerate, or how deviations combine with predispositions to produce aberration. But the learning explanation without appropriate data is another promissory note in the history of debits that has been the fate of mental health programs.

To get some idea of what the external contingency looks like outside of the Skinner box, we obtained permission to observe people in their homes. The first problem was to decide what to count. We observed mothers and children at lunchtime. Only the child ate, and the behavior was primarily verbal, the mother and child conversing. What constitutes a response in the case of verbal behavior and how do you classify it? We divided the mother's and child's speech into categories on the basis of such topics as sports, school, self, etc. Treating the child as recipient and the mother as donor, we recorded the response the mother made following each response by the child. A matrix with mother's response classes on the vertical and child's on the horizontal showed that frequency was concentrated along the diagonal, which meant that mothers typically preserved the topic of the child. If the child talked about sports, she responded in kind, only occasionally changing the subject (more so, probably, than would occur in a conversation between equals).

Were there any rewards, and if there were, what was the behavior being rewarded? We treated the mother's verbal responses to the child as possible rewards and undertook to test their effect by observing what happened to the child's speech upon the removal and subsequent restoration of the mother's speech. If the mother's response to the child rewarded his utterance, eliminating the response should reduce the frequency of the child's speech; restoration of the mother's reply should restore the child's speech to its former level.

After obtaining stable baselines, which took several months, we obtained the mother's cooperation for the next step of the experiment. Mothers agreed that when the child spoke either about himself or about sports they would not reply at all or would reply in an other semantic category.

A check of the mother's ability to code the child's speech showed that they had little difficulty. But despite their good intentions and rehearsals, the mothers were unable to carry out their plan. The main thing we learned is that the mother must be trained beforehand. Not replying or changing the topic so conflicts with normal speech that without training the average speaker cannot do it.

The plan had been to compare the frequency of the child's speech in the categories under baseline and experimental conditions. However, a change in frequency would not automatically qualify the mother's behavior as a reward. Her effect could well be that of a stimulus.

Consider another source of difficulty. What unit of the child's behavior should be treated as the locus of reward? The question is not, Can you reward behavior in everyday life? but rather, Is it rewarded? If so how? To what degree? If the mother is re-

warding the child, it is probably not in her topic-duplicating comments. More likely, the mother's comments help to keep the child on a semantic track, enabling him to work his way through to some dimly envisaged conclusion. The rewarded unit may be more comparable to the paragraph than the sentence. In brief, we can speculate about the role of the external contingency in everyday life; but obtaining data on the ecological role of reward is another matter.

One-Organism Versions of the Two-Organism Procedures

In principle, the uncertainties that arise in applying the external contingency outside the laboratory could be overcome if motivational processes that involve two organisms could be carried out with one organism. We have encountered one version of this proposal in the conscience or the superego. But the superego or conscience is a limited version of a more general proposal. In the general proposal every operation that goes on at the level of two devices can also be arranged with one device. We end up not only with self-reward but also with self-punishment, self-extinction, etc.

That classic two-organism processes can be duplicated on a one-organism basis is a powerful claim and would have far-reaching implications. In its scope the claim is that all effects produced by direct experience can also be produced indirectly, by observing an appropriate model undergo the direct experience. But if the claim is correct, the second organism could be dispensed with altogether. The subject should be able to extinguish his own responses. If he can increase the frequency of his responses by rewarding them, he should be able to extinguish them by withholding reward. When we consider vicarious motivation and self-motivation together, we may see the external contingency vanish into insignificance. The emphasis given this procedure in the laboratory may come from its susceptibility to experimental attack. But in conjecturing about the ecology we may be misled by the laboratory popularity of the external contingency. Along with vicarious and self-motivational processes, the external contingency may be but one of three ways in which behavior is modulated, and for adult members of society perhaps the least important of the three.

Self-Reward

The remaining discussion is restricted to one of the forms of self-motivation, namely, self-reward. Presumably it is representative of self-motivational processes generally, so that whatever we find out about it can be applied to the other forms.

Self-praise as self-reward—One experiment attempted to combine vicarious processes with self-reward. The paradigm involved two groups of children; each observed a model play a game. In one case the model was strict with himself and praised his performance sparingly; in the other he was lenient and praised his performance freely. When the children played the game, both groups played the game about equally well, but those who had watched the lenient model praised themselves more often then those who had watched the strict model.

The weakness of these studies is that they equated self-praise with self-reward. To be considered a reward, self-praise must increase the frequency of the response class that it follows. Although the two groups differed in the frequency of self-praise, they did not differ in the amount they played the game. Barring a ceiling effect, this

would disqualify the self-praise as a reward.

Although these studies suggest that praising one's self—or doing so on the basis of a model—may not be rewarding, they do not disprove the possibility of self-reward. But they do suggest a methodological rule that one follow in attempting to study self-reward. Do not ask whether or not an event is self-rewarding until it is shown that the event is a reward when applied in the classical manner. We see no reason to believe that events which are not rewards when applied in a classical way should become rewards when an individual applies them to itself. It would be foolish to claim categorically that there are no such cases, but the least risky research stratagem is to start out with events that are clearly rewarding when applied by a second party.

Self-praise is anomalous with respect to this requirement—as is shown by this example. In bowling with his daughter, a father occasionally remarks of his daughter's performance, "That's a good shot." Occasionally he says the same of himself. The daughter copies the father and sometimes says of her own performance, "That's a good shot." We have "that's a good shot" said of the daughter on two occasions, once by the father and once by the daughter when she copies her father and praises herself.

What is the reward value of self-praise relative to that of direct praise? If the father's praise had no reward value, how much value could the daughter's copy of the father's praise have? One assumption is that reward value of self-praise is proportional to that of direct praise. But the two may be independent; what varies with direct praise may not be reward value of self-praise but the probability that the child will engage in self-praise. We know that a child is more likely to copy the praise of a model whom it likes; still, on those occasions when it does copy a relatively disliked model, what is the reward value of the self-praise?

Denial as a precondition for reward —The two operations in reward are the delivery of the reward and the imposition of a response requirement upon which delivery of the reward is contingent. To engage in self-reward, an individual must not merely give himself the reward but impose upon himself a criterion which he must meet before giving himself the reward. It is not difficult for one organism to impose a criterion upon a second organism, but there is a great asymmetry in the difficulty of the two operations when they are carried out by a single organism. Giving oneself a desired item is easy; denying it to oneself until one has met a standard is a different matter.

Self-denial is a precondition for self-reward; how this precondition is realized is what we will attempt to describe. But do not suppose that self-reward in being dependent upon denial is different from classical reward. Although this fact is concealed by inadequacies in the traditional account of reinforcement, classical two-organism reward is as much dependent upon denial as self-reward is upon self-denial. Indeed, there is a sense in which all reward begins with denial.

Suppose the subject is a thirsty rat, the would-be reward is water, and the criterion is running in a wheel. According to the customary account of reward, there should be no difficulty in using water to reinforce running in a thirsty rat. However, unless the contingency imposes a condition of denial upon the rat, water will not reward running.

Suppose the base level of running

and drinking are 20 and 100 seconds, respectively, per 10-minute session. The rat is five times as likely to drink as it is to run. We arrange a contingency in which each time the rat runs for 1 second it receives an opportunity to drink for 5 seconds. What will be the consequence? Nothing—the rat will not run more than its base level. Contingencies that permit the animal to drink base level without running more than base level do not entail denial and do not produce reinforcement.

Standards: The restraining force—The basic problem in self-reward is self-denial. The individual must be equipped with a restraining force that will enable him to withhold the preferred event from himself. The restraining force can be produced in more than one way, though some ways will be better. Perhaps the most direct attack on this problem could be made by punishing the subject whenever it attempted to respond to the preferred event without meeting the criterion. There is an instructive animal example of this case. Pigeons were taught to peck a key for food, after which the magazine was made available to the bird *before* it pecked the key. As the duration of the magazine presentation was increased, even the well-trained pigeon began to eat before pecking on the key. The bird was punished for doing so by having the magazine withdrawn. Only a few trials of this kind were necessary to suppress the undesired response and to teach the bird to peck before eating. The bird imposed the criterion on itself—pecking before eating—because it was punished when it did not.

To what extent does this case do justice to what we assume to be involved in socialization? It is open to criticism on two grounds.

First, the effect of punishment, like that of reward, is temporary. We can predict that when the punishment is terminated, the preferred response will not remain suppressed and the subject will go back to eating without pecking. Indeed, when a failure to peck before eating was not punished, this was the outcome; the birds ceased to peck and ate from the open magazine. Notice how this breakdown underscores the problem pointed out by critics of the external contingency. Once the child leaves home and is no longer subject to punishment, control will collapse, as it did when punishment was withdrawn from the pigeons.

An approach to the ecological version of this problem is to transfer the mother's role to new supervisorial agents. Agents whose contact hours with the subject were sufficient to subserve the needs of the external contingency could then mete out the punishment. Perhaps with an appropriate intermittent schedule the contact hours required would not be incompatible with the other needs of the system. A wife could punish her husband's transgressions and still have time to cook supper and look after the children. Lacking ecological data on the external contingency, we cannot exclude this alternative. Indeed, a behavior engineer might solve the problem easily. Rather than make one supervisorial agent responsible for all punishment, he would distribute the responsibility over all the agents whom the subject was likely to contact. If not only the wife but also the boss, union chief, butcher, etc., reprimanded the subject on timely occasions, the effect might keep the subject in line indefinitely.

But notice the senselessness of self-reward in such a situation. The point of self-reward is to eliminate the need for a second agent. But if the restraining force, upon which self-reward de-

pends, cannot be maintained without second agents, then what is the point of self-reward? Is punishment more effective than reward? Would it require fewer man hours than two-organism reward? Or is an image of self-control preserved by having the subject hand himself reward? These seem dubious gains.

An agent who was in a position to punish a subject would be in a position to reward him. The opposite is equally true. The first step in rewarding an organism is to confiscate the reward, that is, to gain control over those stimuli for which the species is most likely to respond and to maximize the probability of responding by deprivation procedures. Any agent that can do that to an organism can punish it. In summary, for self-reward to make sense, we need a restraining mechanism that does not itself depend upon a second organism.

Restraint Built on Avoidance

Punishment is not the only way to build a restraining force, nor is it a good way. Avoidance, if it has no other liabilities, would overcome the main drawback of punishment; it is known to produce exceptional resistance to extinction. In avoidance, as long as the subject responds it cannot discover that the contingency was discontinued, whereas in punishment and reinforcement it is by responding that it can discover such changes. Avoidance, moreover, would not seem to introduce any new problem, as would be the case if we tried to improve upon punishment by, for example, increasing the severity of the punisher. Although intense shock produces greater resistance to extinction, it does so by greater suppression in the first place. This would be an unacceptable approach if some form of the suppressed response were necessary for the survival of the subject or the species.

Attachment and Withdrawal of the Mother

Probably the basic contingent event in human socialization is withdrawal of the mother. Her potency as a contingent event is made possible by the infant's attachment to her. The infant is apparently subject to periods of both hypostimulation and hyperstimulation about which it can do little but which the mother can relieve with species-specific responses, for example, by playing with the infant in the first case and by holding and stroking it in the other. We have watched a quiescent infant, upon being exposed to a bedstead with painted figures, burst into smile, gurgle, and arch its back in order to direct its gaze at the figures. Conversely, who has not seen screaming infants subside upon being held and stroked?

Although laboratory avoidance is based upon the removal of a noxious event, avoidance could be based upon preventing the removal of a positive event. An avoidance response is effective when it reduces the frequency of electric shock. But if the contingent event were the withdrawal of food, for example, an avoidance response would be effective if it reduced the frequency with which food was withdrawn.

For avoidance to be based upon reducing the frequency with which a positive event is withdrawn, there must be a base frequency with which the event is withdrawn independent of the subject's behavior. Avoidance responding has a simple precondition: The world inflicts untoward events upon its inhabitants at some base frequency independent of the inhabitant's behavior. The subject can avoid or reduce the frequency of the untoward event by responding in a prescribed fashion. Thus we can incorporate the

withdrawal of the mother into this scheme by assuming a base frequency at which the mother withdraws herself, independent of the child's behavior.

The infant is given unconditional access to the mother; as the prime source of both relief and excitement, she becomes a potent stimulus. As the infant turns into the child, his access to the mother is no longer unconditional. He comes increasingly under judgment in proportion to his increasing self-sufficiency. That is, an increasing proportion of his behavior comes to be judged "good" or "bad," and the consequence of the judgment is felt in the rate in which the mother withdraws herself. "Good" behavior produces a rate of withdrawal less than that of the base rate and "bad" behavior a rate of withdrawal greater than that of the base rate.

Part of the mother's effectiveness comes from the high probability that the dependent organism will seek out and respond to the caretaker organism. Evidence is occasionally seen in young chimpanzees. When a young chimp is rebuked with severity for some infraction, it may leap upon its trainer, not to attack him but to cling to him and seek assurance. Interestingly, if the value the infant assigned to the caretaker is proportional to the relief that the caretaker brings, exceptionally high values should be assigned by infants who suffer neglect or inconsistent care, provided they are cared for at all.

Will similar considerations explain the role of toilet training in Western socialization? Since socialization works through judgment on behavior, it should work best through behavior that is inescapable, that occurs often, and that can be detected through its products. With some behaviors the child could avoid judgment by avoiding the behaviors, or by performing them covertly, but not so with elimination. Secondary gains may come from the fact that bowel and bladder control teach the child an anticipatory cognizance of its own body, to sense internal stimulation, a skill that can be applied later on. Toilet training also involves a feature basic to human evaluation: Some acts are good conditional upon place and manner of performance, a precursor of style. Nonetheless, according to this analysis, socialization need not fasten on toilet training. Elimination could be replaced by any other behavior that was equally inescapable, detectable, and frequent.

Rule Induction and Generalized Self-Judgment

Use of avoidance and basing the contingency upon withdrawal of the caretaker are features of a training program. They lead to a restraining force of a particular kind, one with qualities different from those that would be formed by different training programs. Yet, certain qualities of the restraining force cannot come from the training program but must come from the organism. The subject must be capable of processing the inputs provided by the training in such a way as to form a restraining force that can be applied in situations other than those used in the training. If the subject does not show transfer, there is little that can be done at the level of the training program to foster transfer.

Socialization

An explication is solid when we can show either how to produce a desired outcome in an animal or when we can state why the animal is incapable of the outcome. In the case of language, we attempted to state first principal

exemplars and then for each exemplar a training program that would instill it. This is the evidential or "proof-of-the-pudding" part of the explication. But the explication is incomplete until it becomes possible to state the cognitive mechanisms that are a precondition for the performances. We anticipate an inventory of cognitive mechanisms—used in classification of stimuli, storage and retrieval, and problem solving generally—and then an assessment of species in terms of the inventory. At that point, it should be possible to predict whether or not a species can acquire a language, whether or not it can be socialized, and so on.

A child is socialized when its behavior conforms to certain rules, not only in the training situation but in the world at large. The substantive content of the rule is not critical and will vary from culture to culture, even from one sector of society to another. Despite differences in content, all rules will take the same logical form, conditional or biconditional. Some examples from our society are: "You may keep something you have found provided you first have made an effort to find the owner." "To fail without trying is despicable, but if you tried and then failed that is forgivable." The problem is to train the animal so that it will show generalized conformity to conditional or biconditional rules.

Training Program

The training program described here is based on rats since the present facilities do not permit using more appropriate species. The justification for describing the program is that socialization will be made clearer by describing a poor program rather than none at all.

The rat is in an apparatus that makes possible automatic sensing of nine behaviors: eating Food A or B, drinking Liquid C or D, grooming, sniffing at Point X, chewing Object Y, occupying a perch, standing up in Area L. Base data are collected giving the distributions of the burst durations for each of these classes. We then impose the following classification: A burst that exceeds K seconds is good; bursts less than G seconds are bad (K and G defined for the individual rat from its base data). Instances of good behavior are followed by a distinctive stimulus (tantamount to "good") and a consequence designed to increase frequency. "Bad" behavior is followed by a different stimulus and a consequence designed to decrease the frequency. Although there is considerable latitude in which behaviors can be designated good and bad, the judgment is not entirely arbitrary for the outcome must be compatible with the survival of the species.

The consequence assigned to the two classes is manipulated by three tapes, each of which programs a certain frequency of electric shock (we were not able to manage withdrawal of the caretaker organism with the rat). The base tape delivers two shocks per minute independent of the rat's behavior. Thus, the rat's ambience is not untroubled; there is a certain level of metaphysical "grit" in its world and it is delivered by the middle tape.

The rat can escape the middle tape by good or bad behavior. Each instance of good behavior switches control to the low-frequency tape, delivering only .5 shocks per minute, for 3 minutes, after which control returns to the middle tape. An instance of bad behavior has the opposite effect. Grooming in one rat and urinating in a nondesignated quadrant of the cage in another are treated differently. There is no good form of these behaviors. All grooming and urinating in the contraindicated location are

bad, even as nondefensive aggression and premarital copulation are (or once were) tabooed in our society. We have the impression that the nobly aspiring or self-sacrificing type of character may be honed through abstinence or the total denial of strong behavior; grooming is of this sort in the rat, and by denying it to the rat we may open its way to glory.

A more complicated program, better simulating the human case, would take into consideration transients in the rat's behavior. The contingency would be sensitive to the sequential character of the subject's behavior. A run of "good" behavior would soften the blow given the next instance of a "bad" behavior, even as a run of "bad" behavior might harden the blow.

This program describes the second of two phases into which we divided socialization, the judgmental phase, in which contingencies are applied increasingly to the behavior of the ambulatory child. The first phase concerns the helpless infant; rather than being submitted to judgment, he is nurtured by the mother, which paves the way for using her withdrawal as the main contingent event. Phase 1 may have an added affect: because of the child's attachment to the mother, punishment meted out by her may be especially effective, though perhaps only because it contains the threat of her withdrawal. Simulating maternal behavior in the rat is more difficult than in species for which the trainer has only to substitute his own behavior for that of the mother. We are trying only a limited simulation of Phase 2. With some rats, the nine commodities —food, water, etc.—sensed at Phase 2 are not available continuously but are presented discontinuously, their delivery always preceded by what we call the mother stimulus. These rats will later be moved into the child-mother phase and be submitted to judgment like the first rats which skipped the infant-mother phase.

The short-range objective of the training is to increase the frequency of the good behavior and decrease the bad behavior. But that outcome is an almost accidental feature of the long-term objective of socialization. If the socialization program achieves no more than these changes in frequency, it will have failed.

The overriding objective of socialization is to provide an inductive basis for the formation of rules of conduct. In the rat we tested for this outcome by examining the behaviors that were *not* encompassed by the contingencies. Of the nine behaviors sensed, we have set four aside for this purpose. Two tests of transfer are possible. First, transfer can be shown by an appropriate change in the burst distribution of the four classes that were not linked to the contingencies. If the subject were a child we would describe the outcome along these lines: The child has been taught to "try hard" in the case of a certain set of behaviors and now tries hard in the case of all behavior. A second kind of transfer would consist of showing that despite a new stimulus situation the five behaviors linked to the contingency would continue to show the appropriate changes.

The rat could fail to show transfer for several reasons: There is no such thing as socialization; or there is such a process but we have not succeeded in extracting the critical operations; or the operations are appropriate but the procedure must begin when the rat is an infant; or the rat need not be an infant but the mother stimulus is not an effective simulation; the punishment is forceful only when the subject links the punishment causally to

an agent, and though the rat is capable of inferring causality and assuming agency it will not assume agency for the present mother stimulus; or the mother stimulus is an adequate simulation but the rat is cognitively incapable of inducing rules. Of this set we discuss the last alternative.

There is massive indirect and some direct evidence that man copes with exemplars by inducing the rules that can be used to generate them. The indirect evidence comes from language. The ability to speak and receive productively, to produce and comprehend sentences not previously experienced, can be understood only by assuming a set of rules capable of generating the sentences.

But the evidence in the case of language is almost too massive to be persuasive. As experimentalists we prefer smaller cases in which it may be possible to get a closer look at what is going on. Consider some of the work on miniature languages. The subject is read a list of items, for example, pairs of letters constituting part of a matrix formed by placing one list of letters on the horizontal array and another on the vertical. Each cell of the matrix then consists of a letter-letter pair. The experimenter eliminates the pairs lying on the diagonal, takes the remaining pairs, scrambles them, and reads them. Subsequently the subjects are asked to recall what they were read. The most interesting errors are not those of intrusion like letters not included in the original list but errors like recall of the letter pairs that lie along the diagonal, which the subject was not given but which are compatible with the matrix.

Standards, conscience, superego, call it what you like, can be seen as rules induced on a structure, one generated by the mother's sense of what is proper and improper. However, the exemplars are behaviors for which the child receives different outcomes: reward and punishment, punishment and avoidance, some combination of motivational procedures that increase and reduce frequency.

No more than the college sophomore absorbs nonsense syllables without organizing them in some fashion does the child passively absorb frowns and kisses. Why was he punished for this and admired for that? The mother, tirelessly generating from a system instilled in her as a child, attempts to justify, with explanations that are often neither consistent nor elegant. Most of us find a way of systematizing the contingencies. We end up summarizing the exemplars with such phrases as "try hard," "put your shoulder to the wheel," "always give your best," and the like.

The disposition to induce rules is not confined to man. Cognitive dispositions long reserved for man seem to be more primitive than we have supposed. Symbolization, for example, the use of one item to represent another item, can be found in the ape. Nevertheless, we are doubtful that the rat will induce rules on the basis of the training we are giving it, and we would be more confident if the subjects were apes. Yet in working with rats there is always this compensation: If the process can be found with a rat, then it must be real.

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